PROJECT MANUAL

Volume 1 of 2

(Division 0 through Division 2)

Wildwood Avenue Lift Station Replacement

0N1.131616

City of Birchwood Village

Birchwood, MN

BOLTON & MENK

Real People. Real Solutions.

Bolton-Menk.com

CERTIFICATIONS PAGE

PROJECT MANUAL

FOR

WILDWOOD AVENUE LIFT STATION REPLACEMENT

0N1.131616

CITY OF BIRCHWOOD VILLAGE

BIRCHWOOD, MN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: _____

Typed or Printed Name: Jacob Humburg

Date: 10/28/2024 License Number: 56751

TABLE OF CONTENTS

Wildwood Avenue Lift Station Replacement
0N1.131616
City of Birchwood Village, MN

CONTRACT DOCUMENTS:

PROJECT MANUAL:

VOLUME 1 OF 2

Introductory Information, Bidding Requirements, Contract Forms, and Conditions of Contract

Specifications

VOLUME 2 OF 2

APPENDIX A EPA REQUIRED DOCUMENTS

1. Equal Opportunity Clause (41 CFR 60-1.4) and Equal Employment Opportunity (Executive Order 11246)
2. Davis-Bacon Act (40 U.S.C. 3141-3148)
3. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)
4. Rights to Inventions Made Under Contract or Agreement (37 CFR Part 401)
5. Clean Air Act (42 U.S.C. 7401-7671q)
6. Debarment and Suspension (Executive Orders 12549 and 12689)
7. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)
8. Prohibition on Certain Telecommunications (2 CFR 200.216)
9. Procurement of Recovered Materials (2 CFR 200.323)
10. Domestic Preferences for Procurement (2 CFR 200.322)
11. Micro-Purchase Acquisition Threshold (2 CFR 200.320)
12. Federal Water Pollution Control Act (33 U.S.C. 1251-1387)
13. Resource Conservation and Recovery Act (2 CFR 200.323)
14. Build America Buy America Act (2 CFR Part 184)
15. DBE Overview and Requirements (40 CFR Part 33.202 and 33.203)
16. Federal Wage Rates

APPENDIX B 2023 GEOTECHNICAL REPORT

APPENDIX C PLANS – 2001 LIFT STATION MODIFICATIONS

DRAWINGS (UNDER SEPARATE COVER):

12 sheets numbered G0.01 through E0.03, inclusive, dated 10/28/2024, and with each sheet bearing the following general title:

Wildwood Avenue Lift Station Replacement
City of Birchwood Village, Minnesota

******END OF SECTION******

ADVERTISEMENT FOR BIDS
WILDWOOD AVENUE LIFT STATION REPLACEMENT
CITY OF BIRCHWOOD VILLAGE
BIRCHWOOD, MN

RECEIPT AND OPENING OF PROPOSALS: Proposals for the work described below will be received online through QuestCDN.com until 1:00 pm on Tuesday, December 3, 2024, at which time the bids will be opened and publicly read at the office of the City Administrator-Clerk, City of Birchwood Village, 207 Birchwood Ave., Birchwood, MN 55110.

1. Microsoft Teams Link: https://bit.ly/BirchwoodVillageWWLS
2. Call: 1-612-428-8778 / Conference ID: 492 658 667 #

DESCRIPTION OF WORK: The work includes the construction of approximately:

1. Removal of existing lift station components, including pumps, piping and fittings, controls, and other miscellaneous items.
2. Install lift station and controls, install new upstream manhole, install gravity sewer, and modify existing manhole.
3. Install new DIP forcemain and connect to existing forcemain.
4. Site work and restoration including concrete work, bituminous paving and curb, all in accordance with Plans and Specifications.

together with numerous related items of work, all in accordance with Plans and Specifications. This project is subject to federal funding requirements included, but not limited to, Equal Opportunity Provisions, Davis-Bacon Requirements, American Iron and Steel (AIS) Requirements, and Build American-Buy American (BABA) Requirements. See Appendix A of the Project Manual for a complete list of EPA requirements.

COMPLETION OF WORK: All work under the Contract must be complete by 100 calendar days after the date when the Contract Times commence to run.

PLAN HOLDERS LIST, ADDENDUMS, AND BID TABULATION: The plan holders list, addendums, and bid tabulations will be available for download online at www.questcdn.com or www.bolton-menk.com.

TO OBTAIN BID DOCUMENTS: Complete digital project bidding documents are available at www.questcdn.com or www.bolton-menk.com. You may view the digital plan documents for free by entering Quest project #9387624 on the website's Project Search page. Documents may be downloaded for $50.00. Please contact QuestCDN at 952-233-1632 or info@questcdn.com for assistance in free membership registration, viewing, downloading, and working with this digital project information.

BID SUBMITTAL: A bid shall be submitted online no later than the date and time prescribed. For this project, the Owner will only be accepting online electronic bids through QuestCDN. To access the electronic bid form, download the project document and click the online bidding button at the top of the advertisement. Prospective bidders must be on the plan holders list through QuestCDN for bids to be accepted.

BID SECURITY: A Proposal Bond in the amount of not less than 5 percent of the total amount bid, drawn in favor of the City of Birchwood Village shall accompany each bid.

OWNER'S RIGHTS RESERVED: The Owner reserves the right to reject any or all bids and to waive any irregularities and informalities therein and to award the Contract to other than the lowest bidder if, in their discretion, the interest of the Owner would be best served thereby.

DATED: 10/8/2024 **/S/** Rebecca Kellen
City Administrator-Clerk

Published:

White Bear Press: Wednesday, October 30, 2024
QuestCDN: October 30, 2024

******END OF SECTION******

INSTRUCTIONS TO BIDDERS

ARTICLE 1—DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. Issuing Office—The office from which the Bidding Documents are to be issued, and which registers plan holders.

ARTICLE 2—BIDDING DOCUMENTS

2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.

2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.

2.03 Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid. Bidders may rely that sets of Bidding Documents obtained in this manner are complete unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.

2.04 Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms or other sources, or for a Bidder's failure to obtain Addenda if they are not a registered plan holder.

2.05 *Electronic Documents*

A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.

1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

3.01 This Article is not used.

ARTICLE 4—PRE-BID CONFERENCE

4.01 A pre-bid conference will not be conducted for this Project.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

5.02 *Existing Site Conditions*

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:

a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.

b. Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.

c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.

1) Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

5.03 *Other Site-related Documents*

A. In addition to the documents regarding existing Site conditions referred to in Paragraph 5.02.A, the following other documents relating to conditions at or adjacent to the Site are known to Owner and made available to Bidders for reference:

1. No other site related documents are available.

5.04 *Site Visit and Testing by Bidders*

A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit, the Bidder must not disturb any ongoing operations at the Site.

B. Bidder shall conduct the required Site visit during normal working hours.

C. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.

D. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.

E. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

F. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 *Owner's Safety Program*

A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.06 *Other Work at the Site*

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 Express Representations and Certifications in Bid Form, Agreement

A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.

7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing to the Issuing Office. Contact information and submittal procedures for such questions are as follows:

12224 Nicollet Avenue, Burnsville, MN 55337-1649, (952) 890-0509, fax (952) 890-8065

7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.

7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents or the unmodified EJCDC version of the same form.

8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.

8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.

9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 10—SUBSTITUTE AND "OR EQUAL" ITEMS

10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

10.02 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer within 10 days of the issuance of the Advertisement for Bids or invitation to Bidders. Each such request must comply with the requirements of Paragraphs 7.05 and 7.06 of the General Conditions, and the review of the request will be governed by the principles in those paragraphs. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all registered Bidders. Bidders cannot rely upon approvals made in any other manner.

10.03 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

11.01 A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents or in the Specifications. If a prospective Bidder objects to retaining any such Subcontractor or Supplier and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

11.02 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work within five days after Bid opening:

A. There are no key categories of work.

11.03 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

11.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

ARTICLE 12—PREPARATION OF BID

12.01 The Bid Form is included with the Bidding Documents.

A. All blanks on the Bid Form must be completed.

B. Paper bids, if applicable, must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form.

C. A Bid price must be indicated for each section, bid item, alternate, adjustment unit price item, and unit price item listed therein.

D. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

12.02 When submitting a paper bid, if Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.

12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.

12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.

12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.

12.06 A Bid by an individual must show the Bidder's name and official address.

12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.

12.08 When submitting a paper bid, all names must be printed in ink below the signatures.

12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.

12.10 Postal and e mail addresses and telephone number for communications regarding the Bid must be shown.

12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.

12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 Lump Sum

A. Bidders must submit a Bid on a lump sum basis as set forth in the Bid Form.

ARTICLE 14—SUBMITTAL OF BID

14.01 The Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 2 of the Bid Form.

14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid. Paper bids, if applicable, must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid must be addressed to the location designated in the Advertisement.

14.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted. Paper bids that are not accepted will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.

15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

ARTICLE 16—OPENING OF BIDS

16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. A tabulation of the total amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.

18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.

18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.

18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.

18.05 *Evaluation of Bids*

A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

B. For the determination of the apparent low Bidder(s) when alternate(s) are submitted, Bids will be compared on the basis of the sum of the base bid and the alternate(s) selected by the Owner for award.

C. For determination of the apparent low Bidder(s) when sectional bids are submitted, Bids will be compared on the basis of the aggregate of the Bids for separate sections and the Bids for combined sections that result in the lowest total amount for all of the Work.

D. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

E. For the determination of the apparent low Bidder when cost-plus-fee bids are submitted, Bids will be compared on the basis of the Guaranteed Maximum Price set forth by Bidder on the Bid Form.

18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 19—BONDS AND INSURANCE

19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.

19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

ARTICLE 20—SIGNING OF AGREEMENT

20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 21—SALES AND USE TAXES

21.01 Sales tax is to be included in the Bid.

ARTICLE 22—CONTRACTS TO BE ASSIGNED

22.01 No Supplementary Conditions in this Article.

Items to Be Submitted with the Bid

for

Wildwood Avenue Lift Station Replacement

0N1.131616

City of Birchwood Village

Birchwood, MN

BID FORMS

Wildwood Avenue Lift Station Replacement
0N1.131616
City of Birchwood Village, Minnesota

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to: City of Birchwood Village, 207 Birchwood Ave., Birchwood, MN 55110. Refer to the Advertisement for Bids for submittal location, format, and deadline for consideration.

1.02 This bid form is provided for Bidders reference. The Bid must be submitted to City of Birchwood Village electronically through QuestCDN.

1.03 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

A. Section 00 41 00 - Bid Form

B. Section 00 43 13 - Bid Security Form

C. Section 00 44 00 - SAM Documentation

D. Section 00 45 11 - Responsible Contractor Verification and Certification of Compliance Prime Contractor Bid Form Attachment of this Project Manual.

ARTICLE 3—BASIS OF BID

3.01 Lump Sum Bids

A. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum (stipulated) price(s), together with any Unit Prices indicated in Paragraph 3.02:

1. Lump Sum Price (Single Lump Sum)

Lump Sum Bid Price	$

ARTICLE 4—TIME OF COMPLETION

4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 Bid Acceptance Period

A. This Bid will remain subject to acceptance for 61 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 Instructions to Bidders

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 Receipt of Addenda

A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	**Addendum Date**

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 Bidder's Representations

A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies,

or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 Bidder's Certifications

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.

2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.

3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:

a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.

b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.

c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.

d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

_____

(typed or printed name of organization)

By: _____

(individual's signature)

Name: _____

(typed or printed)

Title: _____

(typed or printed)

Date: _____

(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest: _____

(individual's signature)

Name: _____

(typed or printed)

Title: _____

(typed or printed)

Date: _____

(typed or printed)

Address for giving notices:

_____

_____

Bidder's Contact:

Name: _____

(typed or printed)

Title: _____

(typed or printed)

Phone: _____

Email: _____

Address:

_____

_____

_____

Bidder's Contractor License No.: (if applicable) _____

BID SCHEDULE

Bid Form for construction of:

Wildwood Avenue Lift Station Replacement

City of Birchwood Village, Minnesota

The undersigned declares that the only persons or parties interested in this Bid as principals are as stated; that the Bid is made without any collusion with other persons, firms, or corporations; that he has carefully examined all the Contract Documents as prepared by Bolton & Menk, Inc.; that he has informed himself fully in regard to all conditions pertaining to the Work and the place where it is to be done, and from them the undersigned makes this Bid. The Bid price covers all expenses incurred in performing the Work required under the Contract Documents, of which this Bid Form is a part.

Note: Bids shall include sales tax and all applicable taxes and fees.

The Bidder has based the following Total Project Base Bid Price upon providing the equipment and materials of the encircled manufacturers as listed in the Equipment/Materials Schedule attached to this Bid Form. Should Bidder fail to indicate which named manufacturer his Total Project Base Bid Price is based upon, the Bidder will supply the first-named manufacturer's equipment/material. Bidder has also indicated substitute equipment/materials that he proposes to be utilized in place of the encircled manufacturers' equipment/materials, subject to the following:

1. Allowance of "alternate" equipment does not constitute a waiver of the Specifications. If the Bidder desires to offer equipment by an "alternate" manufacturer instead of the "Basis of Bid" manufacturer, he shall indicate in the appropriate schedule the change in Lump Sum Base Bid of the "alternate" equipment.

   If a named "alternate" is shown on the bid form, the BIDDER shall indicate a price for installed deduct price. If the BIDDER does not wish to supply a named "alternate" he shall indicate an installed deduct price of zero. If no installed deduct price is listed, the deduct price will be considered to be zero.

   No supporting documents are required for a named alternate. The OWNER reserves the right to accept or reject any or all named "alternates". The named alternates will be taken into consideration in the award of the CONTRACT.

2. In order that the OWNER may determine if the proposed "alternate" manufacturer is a satisfactory substitute to that specified, the bidder shall submit one set of drawings, Specifications, full descriptive material, performance data and a detailed list of exceptions taken to the Specifications with the bid or to the ENGINEER in advance of the bid. Any revisions to structures, piping, mechanical, electrical, instrumentation and control or any other work necessary by such "alternate" equipment must be submitted for approval and the entire cost for such revisions shall be included in the installed price of "alternate."

3. The Engineer will review all proposed "Alternate" Manufacturer's equipment qualification submittals in a timely manner to determine conformance with the performance and technical requirements of this project. The Engineer will be the sole judge as to the comparative quality and suitability of such alternative equipment, products or other materials, and his/her decision shall be final.

4. If awarded a Contract on this project, all equipment items be guaranteed by the undersigned and his Surety to meet the performance requirements of the Contract Documents.

5. That all installed prices stated on the Equipment/Materials Schedule include the preparation and submittal of detailed drawings showing all modifications, if any, to the Contract Drawing necessary to accommodate such equipment and furthermore that all installed costs stated on the Schedule include complete operating installation, and the furnishing and installing of any and all change or additions in structures, piping, buildings, mechanical and electrical work, accessories and controls, necessary to accommodate the equipment.
6. The naming of a manufacturer in this specification is not an indication that the manufacturer's standard equipment is acceptable in lieu of the specified component features. Naming is only an indication that the manufacturer may have the capability of engineering and supplying a system as specified. All exceptions to the specifications shall be indicated in the shop drawing.

This Proposal is submitted after careful study of the plans and specifications and from personal knowledge of the conditions to be encountered at the project site, which knowledge was obtained from the undersigned's own sources of information and not from any official or employee of the City of Eagan, Minnesota.

If a discrepancy appears between the written and the numerical, the written words will be used as the quoted price. If an error appears in an extension or the addition of items, the corrected extension or total of the parts shall govern.

In accordance with the above understanding, the undersigned proposes to perform the Work, furnish all materials, and complete the Work in its entirety in the manner and under the conditions required for the Total Project Base Bid, Lump Sum Price listed on the following pages.

BID of _____

(Name of Bidder)

Schedule of Prices for Construction of:

Wildwood Avenue Lift Station Replacement

City of Birchwood Village, Minnesota

Bidder agrees to perform all of the work described in the CONTRACT DOCUMENTS for the following lump sum:

NOTE: BIDS shall include sales tax and all applicable taxes and fees.

The CONTRACTOR shall include in the lump sum bid a construction allowance of $30,000. Any portion of this allowance not used at the end of the project shall be returned to the OWNER.

TOTAL PROJECT BASE BID PRICE

1. Construction of all facilities as shown on the Contract Drawings and as specified in the Contract Specifications.

To be completed through QuestCDN.com

$ _____

(**To be completed through QuestCDN.com** _____

DOLLARS)

DISCLAIMER

The BIDDER is required to submit the Bid Schedule online through QuestCDN.com under the Bid Worksheet tab. The bid schedule provided in this document is for information only. If BIDDER chooses to complete a paper copy, it needs to be downloaded from the Bid Worksheet tab in QuestCDN.com, completed, and uploaded through QuestCDN. If the BIDDER chooses to fill out both the online and paper schedules, the Bid Schedule submitted online through QuestCDN.com under the Bid Worksheet tab shall take precedence.

EQUIPMENT/MATERIALS SCHEDULE

INSTRUCTIONS

A. Items in the following schedule have been designated as the major equipment and/or material items to be furnished. For each item, the Bidder must indicate which of the named manufacturer's equipment/material he intends to supply and upon which he developed his Total Project Base Bid Price. Such indication should be shown by circling the manufacturer's name.

B. The Bidder shall encircle one, and only one, manufacturer's name for each item in the schedule. Should Bidder fail to indicate which named manufacturer his Total Project Base Bid Price is based upon, the Bidder will supply the first-named manufacturer's equipment/material. The prices for the circled equipment/materials schedule do not have to be furnished with the Bid. The lowest three bidders shall supply the equipment/material prices as requested by the ENGINEER.

C. If the Bidder wishes to supply items by an un-named manufacturer, he may propose a substitute manufacturer and indicate the amount by which his Total Project Base Bid Price may be reduced, if the substitution is acceptable to the OWNER and Engineer. Substitute equipment/materials manufacturers will generally be considered provided that:

   1. The substitute equipment is of equal quality, function and performance to the listed equipment item, and it will perform satisfactorily and continuously. In this case, it will be assumed that the cost to the Contractor, if the equipment proposed to be substituted is accepted, is less than the equipment named in the schedule, and, if the substitution is approved, the contract price shall be reduced a corresponding amount. The cost to be deducted from the Total Project Base Bid Price for acceptable substitute equipment shall be listed in the appropriate space on this equipment schedule.

   2. The equipment or material proposed for substitution is superior in construction and efficiency to that named in the Contract. In this case, there may be no Total Project Base Bid Price reduction shown (indicated by a price of zero).

   3. No substitute equipment will be considered unless, in the opinion of the OWNER, it conforms to the Contract Drawings and Specifications in all respects, except for make and manufacturer and minor details.

EQUIPMENT/MATERIALS SCHEDULE		
Specification Section and Equipment Item	**Basis of Bid Equipment/Material Item (circle one – if not circled, first item will be used)**	**Name of "Alternate" Manufacturer and Amount of Deduct for "Alternate" Manufacturer**
26 05 19 Conductors and Cables	Brady 3M Raychem TMS Thomas & Betts E-Z Code	1. $ Installed Price Add/Deduct 2. $ Installed Price Add/Deduct
26 90 04 Lift Station Control System	Automatic Systems Quality Control & Integration Schroeder Process Automation & Controls	1. $ Installed Price Add/Deduct 2. $ Installed Price Add/Deduct
43 25 00 Submersible Centrifugal Pumps	Flygt KSB ABS/Sulzer	1. $ Installed Price Add/Deduct 2. $ Installed Price Add/Deduct

****** END OF SECTION ******

BID SECURITY FORM

Bidder Name: Address *(principal place of business)*:	**Surety** Name: Address *(principal place of business)*:
Owner Name: City of Birchwood Village Address *(principal place of business)*: 207 Birchwood Ave. Birchwood, MN 55110	**Bid** Project *(name and location)*: Wildwood Avenue Lift Station Replacement Birchwood, MN Bid Due Date:
Bond Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	

Bidder	Surety
_____ *(Full formal name of Bidder)*	_____ *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature) (Attach Power of Attorney)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title:	Title:

Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation will be null and void if:

    3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

    3.2. All Bids are rejected by Owner, or

    3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

RESPONSIBLE CONTRACTOR VERIFICATION AND CERTIFICATION OF COMPLIANCE

PRIME CONTRACTOR BID FORM ATTACHMENT

PROJECT NUMBER: 0N1.131616

This form includes changes by statutory references from the Laws of Minnesota 2015, chapter 64, sections 1-9. This form must be submitted with the bid form submitted for this project. A bid form received without this form, may be rejected.

Minn. Stat. § 16C.285, Subd. 7. **IMPLEMENTATION**. … any prime contractor or subcontractor or motor carrier that does not meet the minimum criteria in subdivision 3 or fails to verify that it meets those criteria is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project…	
Minn. Stat. § 16C.285, Subd. 3. **RESPONSIBLE CONTRACTOR, MINIMUM CRITERIA**. "Responsible contractor" means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the following minimum criteria:	
(1)	The Contractor: (i) is in compliance with workers' compensation and unemployment insurance requirements; (ii) is in compliance with Department of Revenue and Department of Employment and Economic Development registration requirements if it has employees; (iii) has a valid federal tax identification number or a valid Social Security number if an individual; and (iv) has filed a certificate of authority to transact business in Minnesota with the Secretary of State if a foreign corporation or cooperative.
(2)	The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 177.24, 177.25, 177.41 to 177.44, 181.03, 181.101, 181.13, 181.14, or 181.722, and has not violated United States Code, title 29, sections 201 to 219, or United States Code, title 40, sections 3141 to 3148. For purposes of this clause, a violation occurs when a contractor or related entity: (i) repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of $25,000 or more within the three-year period, provided that a failure to pay is “repeated” only if it involves two or more separate and distinct occurrences of underpayment during the three-year period; (ii) has been issued an order to comply by the commissioner of Labor and Industry that has become final; (iii) has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees; (iv) has been found by the commissioner of Labor and Industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27; (v) has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or (vi) has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction. Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties;*

(3)	The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order;*
(4)	The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office;*
(5)	The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification;*
	*Any violations, suspensions, revocations, or sanctions, as defined in clauses (2) to (5), occurring prior to July 1, 2014, shall not be considered in determining whether a contractor or related entity meets the minimum criteria.
(6)	The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions that have authority to debar a contractor; and
(7)	All subcontractors and motor carriers that the contractor intends to use to perform project work have verified to the contractor through a signed statement under oath by an owner or officer that they meet the minimum criteria listed in clauses (1) to (6).

Minn. Stat. § 16C.285, Subd. 5. **SUBCONTRACTOR VERIFICATION**.

A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract, and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.

If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.

A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause (7). A prime contractor and subcontractors shall not be responsible for the false statements of any subcontractor with which they do not have a direct contractual relationship. A prime contractor and subcontractors shall be responsible for false statements by their first-tier subcontractors with which they have a direct contractual relationship only if they accept the verification of compliance with actual knowledge that it contains a false statement.

Subd. 5a. Motor carrier verification. A prime contractor or subcontractor shall obtain annually from all motor carriers with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each motor carrier. A prime contractor or subcontractor shall require each such motor carrier to provide it with immediate written notification in the event that the motor carrier no longer meets one or more of the minimum criteria in subdivision 3 after submitting its annual verification. A motor carrier shall be ineligible to perform work on a project covered by this section if it does not meet all the minimum criteria in subdivision 3. Upon request, a prime contractor or subcontractor shall submit to the contracting authority the signed verifications of compliance from all motor carriers providing for-hire transportation of materials, equipment, or supplies for a project.

Minn. Stat. § 16C.285, Subd. 4. **VERIFICATION OF COMPLIANCE**.

A contractor responding to a solicitation document of a contracting authority shall submit to the contracting authority a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in subdivision 3, with the exception of clause (7), at the time that it responds to the solicitation document.

A contracting authority may accept a signed statement under oath as sufficient to demonstrate that a contractor is a responsible contractor and shall not be held liable for awarding a contract in reasonable reliance on that statement. A prime contractor, subcontractor, or motor carrier that fails to verify compliance with any one of the required minimum criteria or makes a false statement under oath in a verification of compliance shall be ineligible to be awarded a construction contract on the project for which the verification was submitted.

A false statement under oath verifying compliance with any of the minimum criteria may result in termination of a construction contract that has already been awarded to a prime contractor or subcontractor or motor carrier that submits a false statement. A contracting authority shall not be liable for declining to award a contract or terminating a contract based on a reasonable determination that the contractor failed to verify compliance with the minimum criteria or falsely stated that it meets the minimum criteria. A verification of compliance need not be notarized. An electronic verification of compliance made and submitted as part of an electronic bid shall be an acceptable verification of compliance under this section provided that it contains an electronic signature as defined in section 325L.02, paragraph (h).

CERTIFICATION

By signing this document I certify that I am an owner or officer of the company, and I certify under oath that:

1) My company meets each of the Minimum Criteria to be a responsible contractor as defined herein and is in compliance with Minn. Stat. § 16C.285, and

2) if my company is awarded a contract, I will submit Attachment A-1 prior to contract execution, and

3) if my company is awarded a contract, I will also submit Attachment A-2 as required.

Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

NOTE: Minn. Stat. § 16C.285, Subd. 2, (c) If only one prime contractor responds to a solicitation document, a contracting authority may award a construction contract to the responding prime contractor even if the minimum criteria in subdivision 3 are not met.

******END OF SECTION******

Items to Be Executed After Bid Opening

for

Wildwood Avenue Lift Station Replacement

0N1.131616

City of Birchwood Village

Birchwood, MN

NOTICE OF AWARD

Date of Issuance:

Owner:	City of Birchwood Village	Owner's Project No.:	
Engineer:	Bolton & Menk, Inc.	Engineer's Project No.:	0N1.131616
Project:	Wildwood Avenue Lift Station Replacement		
Contract Name:			
Bidder:			
Bidder's Address:			

You are notified that Owner has accepted your Bid dated _____ for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

- Wildwood Avenue Lift Station Replacement

The Contract Price of the awarded Contract is $_____. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

_____ unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award or has been transmitted or made available to Bidder electronically.

☐ Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [number of copies sent] counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Deliver to Owner executed Section 00 51 11 "ADDITIONAL SUBCONTRACTORS LIST" in accordance with Minn. Stat. 16C.285 subd.3 Subclauses (1) to (7). Delivery is a condition precedent to execution of this contract and failure to submit this form shall be cause for the Owner to cancel Award of Contract and declare your Bid security forfeited.
4. Other conditions precedent (if any): [Describe other conditions that require Successful Bidder's compliance]

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: City of Birchwood Village

By *(signature)*: _____

Name *(printed)*: Rebecca Kellen

Title: City Administrator-Clerk

Copy: Engineer

RESPONSIBLE CONTRACTOR VERIFICATION AND CERTIFICATION OF COMPLIANCE
ATTACHMENT A-1
FIRST-TIER SUBCONTRACTORS LIST

SUBMIT PRIOR TO EXECUTION OF A CONSTRUCTION CONTRACT
PROJECT NUMBER: 0N1.131616

Minn. Stat. § 16C.285, Subd. 5. A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract, and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.

FIRST TIER SUBCONTRACTOR NAMES* **(Legal name of company as registered with the Secretary of State)**	**Name of city where company home office is located**

*Attach additional sheets as needed for submission of all first-tier subcontractors.

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-1	
By signing this document I certify that I am an owner or officer of the company, and I certify under oath that: All first-tier subcontractors listed on attachment A-1 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.	
Authorized Signature of Owner or Officer:	**Printed Name:**
Title:	**Date:**
Company Name:	

ADDITIONAL SUBCONTRACTORS LIST
ATTACHMENT A-2
ADDITIONAL SUBCONTRACTORS LIST

PRIME CONTRACTOR TO SUBMIT AS SUBCONTRACTORS ARE ADDED TO THE PROJECT
PROJECT NUMBER: 0N1.131616

This form must be submitted to the Project Manager or individual as identified in the solicitation document.

Minn. Stat. § 16C.285, Subd. 5. If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.

ADDITIONAL SUBCONTRACTOR NAMES* (Legal name of company as registered with the Secretary of State)	**Name of city where company home office is located**

*Attach additional sheets as needed for submission of all additional subcontractors.

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-2	
By signing this document I certify that I am an owner or officer of the company, and I certify under oath that: All additional subcontractors listed on Attachment A-2 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.	
Authorized Signature of Owner or Officer:	**Printed Name:**
Title:	**Date:**
Company Name:	

AGREEMENT FORMS

This Agreement is by and between City of Birchwood Village ("Owner") and _____ ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

ARTICLE 1—WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

- All labor, materials, equipment, utilities, and all other things necessary for the construction of the Wildwood Ave. Lift Station Rehabilitation, Birchwood Village, Minnesota.

ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

1. Removal of existing lift station components, including pumps, piping and fittings, controls, and other miscellaneous items.
2. Install lift station and controls, install new upstream manhole, install gravity sewer, and modify existing manhole.
3. Install new DIP forcemain, connect to existing forcemain.
4. Site work and restoration including concrete work, bituminous paving and curb, all in accordance with Plans and Specifications

ARTICLE 3—ENGINEER

3.01 The Owner has retained Bolton & Menk, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by Bolton & Menk, Inc.

ARTICLE 4—CONTRACT TIMES

4.01 Time Is of The Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Substantial Completion

A. Substantial completion shall be defined as:

1. The date when construction is sufficiently completed so that the owner can occupy and operate the lift station. This should be no later than October 15, 2025.
2. The Contractor acknowledges that ongoing inspections are required until the conditions of all construction permits for this project are met and specifically during the following work activities: excavation, backfilling, underground utilities including water, sanitary, and storm sewer, compaction, aggregate base, paving, and removal of all traffic control signage and erosion control temporary best management practices.

4.03 Contract Times: Calendar Days

A. The Work will be substantially complete within 75 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 100 calendar days after the date when the Contract Times commence to run.

4.04 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner $650.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.

2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $160.00 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain completion are not additive and will not be imposed concurrently.

B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

ARTICLE 5—CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item).

B. The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

C. For all awarded Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

D. The Work awarded shall include:

1. Base Bid

2. _____

ARTICLE 6—PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

A. Applications for Payment shall be submitted and processed in accordance with Article 15 of the General Conditions or as modified by the Supplemental Conditions.

6.02 Progress Payments; Retainage

A. Owner shall make progress payments during performance of the work on the basis of Contractor's Applications for Payment dated on or about the 25th day of each month of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

a. 95% percent of the value of the Work completed (with the balance being retainage).

b. 95% percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Within 60 days of the date of Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 99 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 250 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment and all final paperwork is completed. Final paperwork is defined as documents required by the contract which may include but are not limited to:

1. Operations Manuals, as built drawings, and submittals required by the contract documents, and

2. Payroll documents for projects with prevailing wage requirements, and

3. IC 134, and

4. Lien Releases, if required.

a. Mn Department of Commerce Form 40.5.1.

b. http://www.commerce.state.mn.us/UCB/40.5.1.pdf or equal.

6.03 Progress Payment to Subcontractors

A. For contracts within the State of Minnesota, MN Statute 471.425 Subd. 4a. shall apply. MN Statute 471.425 Subd. 4a. requires:

1. The prime contractor shall pay any subcontractor within ten days of the prime contractor's receipt of payment for undisputed services provided by the subcontractor.

2. The prime contractor shall pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor.

3. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, the prime contractor shall pay the actual penalty due to the subcontractor.

4. A subcontractor who prevails in a civil action to collect interest penalties from a prime contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action."

6.04 Final Payment

A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.05 Consent of Surety

A. Owner will not make final payment or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.06 Interest

A. All amounts not paid when due will bear interest at the rate of 1.5 percent per month.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 Contents

A. The Contract Documents consist of all the following:

1. This Agreement.
2. Bonds:
    a. Performance bond (together with power of attorney).
    b. Payment bond (together with power of attorney).
3. General Conditions.
4. Supplementary Conditions.
5. Specifications as listed in the table of contents of the project manual (copy of list attached).
6. Drawings as listed in the table of contents of the project manual (copy of list attached.)
7. Addenda (numbers ___ to ___, inclusive).
8. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid (pages ___ to ___, inclusive).
9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    a. Notice to Proceed.
    b. Work Change Directives.
    c. Change Orders.
    d. Field Orders.
    e. Warranty Bond, if any.

B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 7.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 Contractor's Representations

A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:

1. Contractor has examined and carefully studied the Contract Documents, including Addenda.

2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.

5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.

6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 Contractor's Certifications

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

8.03 Standard General Conditions

A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C 700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

8.04 EPA Requirements

A. Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319 preview citation details, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

B. Recipients are responsible for complying with the procedures provided in 29 CFR 1.6 when soliciting bids and awarding contracts.

C. By accepting this contract, the contractor acknowledges and agrees to the terms provided in the DBRA Requirements for Contractors and Subcontractors Under EPA Grants.

D. Build America, Buy America Act (BABAA)

The Contractor acknowledges to and for the benefit of the City of Birchwood Village ("Owner") and the Environmental Protection Agency (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding

Authority that (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

E. Documents included in Appendix A:

1. Equal Opportunity Clause (41 CFR 60-1.4) and Equal Employment Opportunity (Executive Order 11246)
2. Davis-Bacon Act (40 U.S.C. 3141-3148)
3. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)
4. Rights to Inventions Made Under Contract or Agreement (37 CFR Part 401)
5. Clean Air Act (42 U.S.C. 7401-7671q)
6. Debarment and Suspension (Executive Orders 12549 and 12689)
7. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)
8. Prohibition on Certain Telecommunications (2 CFR 200.216)
9. Procurement of Recovered Materials (2 CFR 200.323)
10. Domestic Preferences for Procurement (2 CFR 200.322)
11. Micro-Purchase Acquisition Threshold (2 CFR 200.320)
12. Federal Water Pollution Control Act (33 U.S.C. 1251-1387)
13. Resource Conservation and Recovery Act (2 CFR 200.323)
14. Build America Buy America Act (2 CFR Par 184)
15. DBE Overview and Requirements (40 CFR Part 33.202 and 33.203)
16. Federal Wage Rates

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:	CONTRACTOR:
City of Birchwood Village *(typed or printed name of organization)*	_____ *(typed or printed name of organization)*
By: _____ *(individual's signature)*	By: _____ *(individual's signature)*
Date: _____ *(date signed)*	Date: _____ *(date signed)*
Name: Rebecca Kellen *(typed or printed)*	Name: _____ *(typed or printed)*
Title: City Administrator-Clerk *(typed or printed)*	Title: _____ *(typed or printed)* *(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*
Attest: _____ *(individual's signature)*	Attest: _____ *(individual's signature)*
Title: _____ *(typed or printed)*	Title: _____ *(typed or printed)*
Address for giving notices: 207 Birchwood Ave. Birchwood, MN 55110	Address for giving notices:
Designated Representative:	Designated Representative
Name: _____ *(typed or printed)*	Name: _____ *(typed or printed)*
Title: _____ *(typed or printed)*	Title: _____ *(typed or printed)*
Address:	Address:

NOTICE TO PROCEED

Owner:	City of Birchwood Village	Owner's Project No.:	
Engineer:	Bolton & Menk, Inc.	Engineer's Project No.:	0N1.131616
Contractor:		Contractor's Project No.:	
Project:	Wildwood Avenue Lift Station Replacement		
Contract Name:			
Effective Date of Contract:			

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on _____ pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

The Substantial Completion and Final Completion must be achieved in accordance with the requirements of the Agreement.

Before starting any Work at the Site, Contractor must comply with the following: None

Owner: City of Birchwood Village

By *(signature)*:

Name *(printed)*: Rebecca Kellen

Title: City Administrator-Clerk

Date Issued:

Copy: Engineer

PERFORMANCE BOND FORM

Contractor	**Surety**
Name:	Name:
Address *(principal place of business)*:	Address *(principal place of business)*:
Owner	**Contract**
Name: City of Birchwood Village	Description *(name and location):*
Mailing address *(principal place of business)*:	Wildwood Avenue Lift Station Replacement
207 Birchwood Ave.	220 Wildwood Ave.
Birchwood, MN 55110	Birchwood, MN
	Contract Price:
	Effective Date of Contract:

Bond

Bond Amount:

Date of Bond:

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal	Surety
_____	_____
(Full formal name of Contractor)	*(Full formal name of Surety) (corporate seal)*
By: _____	By: _____
(Signature)	*(Signature)(Attach Power of Attorney)*
Name: _____	Name: _____
(Printed or typed)	*(Printed or typed)*
Title: _____	Title: _____
Attest: _____	Attest: _____
(Signature)	*(Signature)*
Name: _____	Name: _____
(Printed or typed)	*(Printed or typed)*
Title: _____	Title: _____

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:

    3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;

    3.2. The Owner declares a Contractor Default, terminates the Construction Contract, and notifies the Surety; and

    3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

    5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

    5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

    5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

    5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

   7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

   7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

   7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1. Balance of the Contract Price—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2. Construction Contract—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3. Contractor Default—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4. Owner Default—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5. Contract Documents—All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

16. Modifications to this Bond are as follows: None

PAYMENT BOND FORM

Contractor	**Surety**
Name:	Name:
Address *(principal place of business)*:	Address *(principal place of business)*:
Owner	**Contract**
Name: City of Birchwood Village Mailing address *(principal place of business):* 207 Birchwood Ave. Birchwood, MN 55110	Description *(name and location):* Wildwood Avenue Lift Station Replacement 220 Wildwood Ave. Birchwood, MN Contract Price: Effective Date of Contract:

Bond

Bond Amount:

Date of Bond:

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal	Surety
_____	_____
(Full formal name of Contractor)	*(Full formal name of Surety) (corporate seal)*
By: _____	By: _____
(Signature)	*(Signature)(Attach Power of Attorney)*
Name: _____	Name: _____
(Printed or typed)	*(Printed or typed)*
Title: _____	Title: _____
Attest: _____	Attest: _____
(Signature)	*(Signature)*
Name: _____	Name: _____
(Printed or typed)	*(Printed or typed)*
Title: _____	Title: _____

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond will arise after the following:

    5.1. Claimants who do not have a direct contract with the Contractor

        5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

        5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).

    5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

    7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

    7.2. Pay or arrange for payment of any undisputed amounts.

    7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

    16.1. Claim—A written statement by the Claimant including at a minimum:

        16.1.1. The name of the Claimant;

        16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

        16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

        16.1.4. A brief description of the labor, materials, or equipment furnished;

16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

16.1.7. The total amount of previous payments received by the Claimant; and

16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2. Claimant—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3. Construction Contract—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4. Owner Default—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5. Contract Documents—All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

18. Modifications to this Bond are as follows: **None**

WARRANTY BOND FORM

Contractor	**Surety**
Name: Address (principal place of business):	Name: Address (principal place of business):
Owner	**Construction Contract**
Name: City of Birchwood Village Address *(principal place of business)*: 207 Birchwood Ave. Birchwood, MN 55110	Description (name and location): Wildwood Avenue Lift Station Replacement 220 Wildwood Ave. Birchwood, MN Contract Price: Effective Date of Contract: Contract's Date of Substantial Completion:

Bond

Bond Amount: _____

Date of Bond: _____

Bond Period: Commencing 364 days after Substantial Completion of the Work under the Construction Contract, and continuing until 2 year(s) after such Substantial Completion.

Modifications to this Bond form:
☐ None ☐ See Paragraph 9

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth herein, do each cause this Warranty Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal	Surety
_____ *(Full formal name of Contractor)*	_____ *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature) (Attach Power of Attorney)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title:	Title:

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract's Correction Period Obligations. The Construction Contract is incorporated herein by reference.

2. If the Contractor performs the Correction Period Obligations, the Surety and the Contractor shall have no obligation under this Warranty Bond.

3. If Owner gives written notice to Contractor and Surety during the Bond Period of Contractor's obligation under the Correction Period Obligations, and Contractor does not fulfill such obligation, then Surety shall be responsible for fulfillment of such Correction Period Obligations. Surety shall either fulfill the Correction Period Obligations itself, through its agents or contractors, or, in the alternative, Surety may waive the right to fulfill the Correction Period Obligations itself and reimburse the Owner for all resulting costs incurred by Owner in performing Contractor's Correction Period Obligations, including but not limited to correction, removal, replacement, and repair costs.

4. The Surety's liability is limited to the amount of this Warranty Bond. Renewal or continuation of the Warranty Bond will not modify such amount unless expressly agreed to by Surety in writing.

5. The Surety shall have no liability under this Warranty Bond for obligations of the Contractor that are unrelated to the Construction Contract. No right of action will accrue on this Warranty Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

6. Any proceeding, legal or equitable, under this Warranty Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and must be instituted within two years after the Surety refuses or fails to perform its obligations under this Warranty Bond.

7. Written notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown in this Warranty Bond.

8. Definitions

    8.1. Construction Contract—The agreement between the Owner and Contractor identified on the cover page of this Warranty Bond, including all Contract Documents and changes made to the agreement and the Contract Documents.

    8.2. Contract Documents—All the documents that comprise the agreement between the Owner and Contractor.

    8.3. Correction Period Obligations—The duties, responsibilities, commitments, and obligations of the Contractor with respect to correction or replacement of defective Work, as set forth in the Construction Contract's Correction Period clause, EJCDC® C 700, Standard General Conditions of the Construction Contract (2018), Paragraph 15.08, as duly modified.

    8.4. Substantial Completion—As defined in the Construction Contract.

    8.5. Work—As defined in the Construction Contract.

9. Modifications to this Bond are as follows: **None**

C-700 2018
Standard General Conditions of the Construction Contract

Wildwood Avenue Lift Station Replacement

0N1.131616

City of Birchwood Village

Birchwood, MN

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By

EJCDC®
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

ACEC
AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

NSPE®
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed By

CSI®
Building Knowledge
Improving Project Delivery

NUCA
We Dig America

National Society of Professional Engineers

1420 King Street, Alexandria, VA 22314-2794

(703) 684-2882

www.nspe.org

American Council of Engineering Companies

1015 15th Street N.W., Washington, DC 20005

(202) 347-7474

www.acec.org

American Society of Civil Engineers

1801 Alexander Bell Drive, Reston, VA 20191-4400

(800) 548-2723

www.asce.org

NOTE: EJCDC publications may be purchased at www.ejcdc.org, or from any of the sponsoring organizations above.

GUIDELINES FOR USE OF EJCDC® C-700, STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT

EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), is the foundation document for the EJCDC Construction Series. The General Conditions define the basic rights, responsibilities, risk allocations, and contractual relationship of the Owner and Contractor, and establish how the Contract is to be administered.

2.0 OTHER DOCUMENTS

EJCDC documents are intended to be used as a system and changes in one EJCDC document may require a corresponding change in other documents. Other EJCDC documents may also serve as a reference to provide insight or guidance for the preparation of this document.

These General Conditions have been prepared for use with either EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price), or EJCDC® C-525, Agreement Between Owner and Contractor for Construction Contract (Cost-Plus-Fee) (2018 Editions). The provisions of the General Conditions and the Agreement are interrelated, and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018).

The full EJCDC Construction series of documents is discussed in the EJCDC® C-001, Commentary on the 2018 EJCDC Construction Documents (2018).

3.0 ORGANIZATION OF INFORMATION

All parties involved in a construction project benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. Careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition) when preparing documents. EJCDC® N-122/AIA® A521 is available at no charge from the EJCDC website, www.ejcdc.org, and from the websites of EJCDC's sponsoring organizations.

If CSI MasterFormat™ is used for organizing the Project Manual, consult CSI MasterFormat™ for the appropriate document number (e.g., under 00 11 00, Advertisements and Invitations), and accordingly number the document and its pages.

4.0 EDITING THIS DOCUMENT

Remove these Guidelines for Use. Some users may also prefer to remove the two cover pages.

Although it is permissible to revise the Standard EJCDC Text of C-700 (the content beginning at page 1 and continuing to the end), it is common practice to leave the Standard EJCDC Text of C-700 intact and unaltered, with modifications and supplementation of C-700's provisions set forth in EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018). If the Standard Text itself is revised, the

user must comply with the terms of the License Agreement, Paragraph 4.0, Document-Specific Provisions, concerning the tracking or highlighting of revisions. The following is a summary of the relevant License Agreement provisions:

1. The term "Standard EJCDC Text" for C-700 refers to all text prepared by EJCDC in the main body of the document. Document covers, logos, footers, instructions, or copyright notices are not Standard EJCDC Text for this purpose.
2. During the drafting or negotiating process for C-700, it is important that the two contracting parties are both aware of any changes that have been made to the Standard EJCDC Text. Thus, if a draft or version of C-700 purports to be or appears to be an EJCDC document, the user must plainly show all changes to the Standard EJCDC Text, using "Track Changes" (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions.
3. If C-700 has been revised or altered and is subsequently presented to third parties (such as potential bidders, grant agencies, lenders, or sureties) as an EJCDC document, then the changes to the Standard EJCDC Text must be shown, or the third parties must receive access to a version that shows the changes.
4. Once the document is ready to be finalized (and if applicable executed by the contracting parties), it is no longer necessary to continue to show changes to the Standard EJCDC Text. The user may produce a final version of the document in a format in which all changes are accepted, and the document at that point does not need to include any "Track Changes," redline/strikeout, highlighting, or other indication of additions and deletions to the Standard EJCDC Text.

5.0 LICENSE AGREEMENT

This document is subject to the terms and conditions of the **License Agreement, 2018 EJCDC® Construction Series Documents**. A copy of the License Agreement was furnished at the time of purchase of this document, and is available for review at www.ejcdc.org and the websites of EJCDC's sponsoring organizations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*

a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.

c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.

d. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.

23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

    a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.

    b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.

    c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.

28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.

32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.

34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.

36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.

39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.

44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

46. *Technical Data*

    a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.

    b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.

    c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.

47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

48. *Unit Price Work*—Work to be paid for on the basis of unit prices.

49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*: The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*: The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

1. does not conform to the Contract Documents;

2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

3. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).

E. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. *Contract Price or Contract Times*: References to a change in "Contract Price or Contract Times" or "Contract Times or Contract Price" or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term "or both" is not expressed.

G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).

B. *Evidence of Contractor's Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.

C. *Evidence of Owner's Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.

B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

G. Nothing in the Contract Documents creates:

1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. Abnormal weather conditions;

3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and

4. Acts of war or terrorism.

D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.

2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;

2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;

3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;

4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and

5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.

G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;

2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and

3. Technical Data contained in such reports and drawings.

B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;

2. is of such a nature as to require a change in the Drawings or Specifications;

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;

b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;

4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.

C. *Engineer's Review*: Engineer will:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;

2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;

3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and

4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and

c. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.

H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.

B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.

C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.

E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.

F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.

H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.

D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

H. Contractor shall require:

1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.

I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.

K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.

M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

A. *Required Insurance*: Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.

B. *General Provisions*: The policies of insurance required by this Paragraph 6.03 as supplemented must:

1. include at least the specific coverages required;

2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;

3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;

4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and

5. include all necessary endorsements to support the stated requirements.

C. *Additional Insureds*: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:

1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;

2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;

3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and

5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.

B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.

C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.

E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.

C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.

D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.

C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

A. *Contractor's Request; Governing Criteria*: Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that the proposed item:

1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) has a proven record of performance and availability of responsive service; and

4) is not objectionable to Owner.

b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:

    a. will certify that the proposed substitute item will:

        1) perform adequately the functions and achieve the results called for by the general design;

        2) be similar in substance to the item specified; and

        3) be suited to the same use as the item specified.

    b. will state:

        1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;

        2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

        3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

    c. will identify:

        1) all variations of the proposed substitute item from the item specified; and

        2) available engineering, sales, maintenance, repair, and replacement services.

    d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.

B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.

E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.

F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.

L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.

C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.

H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:

a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determine and verify:

1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;

2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;

c. confirm that the Submittal is complete with respect to all related data included in the Submittal.

2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. *Shop Drawings*

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.

2. *Samples*

a. Contractor shall submit the number of Samples required in the Specifications.

b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Engineer's Review of Shop Drawings and Samples*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. *Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.

2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:

   a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.

   b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.

   c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.

2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03. 2.04, and 2.05.

F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.

B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:

1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and

2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:

1. Observations by Engineer;

2. Recommendation by Engineer or payment by Owner of any progress or final payment;

3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. Use or occupancy of the Work or any part thereof by Owner;

5. Any review and approval of a Shop Drawing or Sample submittal;

6. The issuance of a notice of acceptability by Engineer;

7. The end of the correction period established in Paragraph 15.08;

8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.

E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;

2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and

3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.

D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. An itemization of the specific matters to be covered by such authority and responsibility; and

3. The extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.

2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.

C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.

B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

A. Engineer has the authority to reject Work in accordance with Article 14.

B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.

C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.

D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.

C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and

4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.

2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.

B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.

B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.

C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or

3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:

1. A mutually acceptable fixed fee; or

2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;

b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;

c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and

f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.

B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

A. *Purpose and Content*: Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal*: Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.

2. *Supporting Data*: The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.

    a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.

    b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

    The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review*: Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.

4. *Engineer's Full Review and Action on the Change Proposal*: Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and

4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.

5. Other costs consisting of the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.

3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. The cost of purchasing, renting, or furnishing small tools and hand tools.

3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

6. Expenses incurred in preparing and advancing Claims.

7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:

a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.

b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:

1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.

2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.

2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:

a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.

2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

    a. to supervise, direct, or control the Work;

    b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

    c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;

    d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or

    e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

    a. the Work is defective, requiring correction or replacement;

    b. the Contract Price has been reduced by Change Orders;

    c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

    d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

    e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

    a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. The Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. The Contract Price has been reduced by Change Orders;

i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;

j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or

l. Other items entitle Owner to a set-off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.

2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.

2. The final Application for Payment must be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

d. a list of all duly pending Change Proposals and Claims; and

e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Final Application and Recommendation of Payment*: If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Notice of Acceptability*: In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.

D. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.

E. *Final Payment Becomes Due*: Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;
2. correct such defective Work;
3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.

B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and

2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business;

2. by registered or certified mail, postage prepaid, to the recipient's place of business; or

3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

C-800 2018
Supplementary Conditions
of the Construction Contract

Wildwood Avenue Lift Station Replacement

0N1.131616

City of Birchwood Village

Birchwood, MN

Supplementary Conditions of the Construction Contract

SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C 700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, “Paragraph SC-4.05.”

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

SC-1.01.A.33 Insert the following sentence at the end of Paragraph 1.01.A.33:

The term Construction Project Representative (CPR) shall have the same meaning as RPR.

SC-1.01.A.42. Delete Paragraph 1.01.A.42 in its entirety and insert the following in its place:

42. Substantial Completion – Substantial Completion shall be as defined in the Agreement.

ARTICLE 2—PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

SC-2.01 Delete Paragraphs 2.01.B. and C. in their entirety and insert the following in their place:

B. Evidence of Contractor’s Insurance: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies (including all endorsements, and identification of applicable self-insured retentions and deductibles) of insurance required to be provided by Contractor in this Contract. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

C. Evidence of Owner’s Insurance: After receipt from Contractor of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner in this Contract (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

2.02 Copies of Documents

SC-2.02 Amend the first sentence of Paragraph 2.02.A. to read as follows:

A. Owner shall furnish to Contractor four printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and one in electronic portable document format (PDF).

2.06 Electronic Transmittals

SC-2.06 Delete Paragraphs 2.06.B and 2.06.C in their entirety and insert the following in their place:

B. Electronic Documents Protocol: The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol ("EDP" or "Protocol") for exchange of electronic transmittals.

1. Basic Requirements

a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.

b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.

c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.

d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.

e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party's use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.

f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed, and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.

2. System Infrastructure for Electronic Document Exchange

a. Each party will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions ("System Infrastructure") at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements

specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.

1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is 5 MB. Attachments larger than that may be exchanged using large file transfer functions or physical media.

2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.

b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with the party's individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.

c. Each party will operate and maintain industry-standard, industry-accepted, ISO standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security software and systems, it shall not be liable to the other party for any breach of system security.

d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.

e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.

f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.

g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.

C. Software Requirements for Electronic Document Exchange; Limitations

1. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.

a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.

2. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.

3. Software and data formats for exchange of Electronic Documents will conform to the requirements set forth in Exhibit A to this EDP, including software versions, if listed.

SC-2.06 Supplement Paragraph 2.06 of the General Conditions by adding the following paragraph:

D. Requests by Contractor for Electronic Documents in Other Formats

1. Release of any Electronic Document versions of the Project documents in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be at the sole discretion of the Owner.

2. To extent determined by Owner, in its sole discretion, to be prudent and necessary, release of Electronic Documents versions of Project documents and other Project information requested by Contractor ("Request") in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be subject to the provisions of the Owner's response to the Request, and to the following conditions to which Contractor agrees:

a. The content included in the Electronic Documents created by Engineer and covered by the Request was prepared by Engineer as an internal working document for Engineer's purposes solely and is being provided to Contractor on an "AS IS" basis without any warranties of any kind, including, but not limited to any implied warranties of fitness for any purpose. As such, Contractor is advised and acknowledges that the content may not be suitable for Contractor's application or may require substantial modification and independent verification by Contractor. The content may include limited resolution of models, not-to-scale schematic representations and symbols, use of notes to convey design concepts in lieu of accurate graphics, approximations, graphical simplifications,

undocumented intermediate revisions, and other devices that may affect subsequent reuse.

b. Electronic Documents containing text, graphics, metadata, or other types of data that are provided by Engineer to Contractor under the request are only for convenience of Contractor. Any conclusion or information obtained or derived from such data will be at the Contractor's sole risk and the Contractor waives any claims against Engineer or Owner arising from use of data in Electronic Documents covered by the Request.

c. Contractor shall indemnify and hold harmless Owner and Engineer and their subconsultants from all claims, damages, losses, and expenses, including attorneys' fees and defense costs arising out of or resulting from Contractor's use, adaptation, or distribution of any Electronic Documents provided under the Request.

d. Contractor agrees not to sell, copy, transfer, forward, give away or otherwise distribute this information (in source or modified file format) to any third party without the direct written authorization of Engineer, unless such distribution is specifically identified in the Request and is limited to Contractor's subcontractors. Contractor warrants that subsequent use by Contractor's subcontractors complies with all terms of the Contract Documents and Owner's response to Request.

3. In the event that Owner elects to provide or directs the Engineer to provide to Contractor any Contractor-requested Electronic Document versions of Project information that is not explicitly identified in the Contract Documents as being available to Contractor, the Owner shall be reimbursed by Contractor on an hourly basis (at $150 per hour) for any engineering costs necessary to create or otherwise prepare the data in a manner deemed appropriate by Engineer.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

No Supplementary Conditions in this Article.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.03 Reference Points

4.03.A. Delete Paragraph 4.03.A of the General Conditions in its entirety and insert the following Paragraph 4.03.A in its place:

A. The OWNER will provide engineering surveys to establish reference points for construction.

4.05 Delays in Contractor's Progress

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

5. Weather-Related Delays

a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been

reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled.

b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:

1) Contractor shall anticipate the number of foreseeable bad weather days per month indicated in the Table 1803-2—Anticipated Work Days Lost Due to Weather in MnDOT Standard Specifications for Construction. The days in Table 1803-2 are cumulative and the number of allowable bad weather days will be determined by totaling the monthly number of days throughout the specified Contract Time. The days in Table 1803-2 will prorated when Contract Time starts or ends mid-month.

2) Work days lost to inclement weather exceeding the allowable number, established as described in Paragraph 4.05.C.2 will be considered as "abnormal weather conditions." The existence of abnormal weather conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus delayed were on Contractor's then-current Progress Schedule's critical path for the Project.

3) The Owner will not consider weekends or holidays, as eligible for extensions of Contract Time due to weather unless the Engineer or Owner directs the Contractor to work those days, or the Contractor's accepted progress schedule in place at the time the delay occurred indicated that the Contractor intended to perform Critical Path Work on those days.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

5.03 Subsurface and Physical Conditions

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

Report Title	Date of Report	Technical Data
23-0841 Birchwood Village Lift Station Geotechnical Report Bundle	December 5, 2023	Data contained in boring logs, recorded measurements of subsurface water levels, and other factual, objective information regarding conditions at the Site.

F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
2001-02-09 Wildwood Avenue Lift Station Modifications	February 9, 2001	Design drawings associated with previous lift station modifications.
1965-12-23 Sanitary Sewer As-built Wildwood Ave Lift Station and Forcemain	December 23, 1965	Information and data regarding the presence or location of Underground Facilities are not Technical Data. *NOTE: Contractor can use for guidance, but need to field verify because report is not guaranteed to be accurate.*

G. Contractor may examine copies of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents at 12224 Nicollet Avenue, Burnsville, MN 55337-1649, (952) 890-0509, fax (952) 890-8065 during regular business hours or may request copies from Engineer.

5.06 Hazardous Environmental Conditions

SC-5.06 Add the following new paragraphs immediately after Paragraph 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

Report Title	Date of Report	Technical Data
There are no reports the Contractor may rely.		

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
There are no drawings the Contractor may rely.		

5.07 Add the following new section immediately after Section 5.06:

5.07 – *Inadvertent Discoveries*

A. The contractor is cautioned that disturbance of historical objects may be subject to criminal or civil penalties.

B. If potential historic objects are found within the project limits, the Contractor shall:

1. Suspend operations in the immediate area of the discovery and protect from construction operations.

2. Notify the Engineer of the presence of potential historical objects.

3. The Contractor shall not perform work that the Contractor considers Extra Work without the written approval of the Engineer.

4. Work may be restricted or suspended in the Immediate area of the historical objects for a period not to exceed 72 hours without a Contractor claim for damages. No restrictions or suspension shall be imposed over 72 hours unless agreed by the Contractor and the Owner in writing.

ARTICLE 6—BONDS AND INSURANCE

6.01 Performance, Payment, and Other Bonds

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. Required Performance Bond Form: The performance bond that Contractor furnishes will be in the form of EJCDC® C 610, Performance Bond (2010, 2013, or 2018 edition).

2. Required Payment Bond Form: The payment bond that Contractor furnishes will be in the form of EJCDC® C 615, Payment Bond (2010, 2013, or 2018 edition).

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.B:

1. The correction period specified as one year after the date of Substantial Completion in Paragraph 15.08.A of the General Conditions is hereby revised to be 2 years after Substantial Completion.

2. After Substantial Completion, Contractor shall furnish a warranty bond issued in the form of EJCDC® C 612, Warranty Bond (2018). The warranty bond must be in a bond amount of 10 percent of the final Contract Price. The warranty bond period will extend to a date 2 years after Substantial Completion of the Work. Contractor shall deliver the fully executed warranty bond to Owner prior to final payment, and in any event no later than 11 months after Substantial Completion.

3. The warranty bond must be issued by the same surety that issues the performance bond required under Paragraph 6.01.A of the General Conditions.

6.02 Insurance—General Provisions

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the Project is located, (b) is certified or authorized as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

6.03 Contractor's Insurance

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

D. Other Additional Insureds: As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: None

E. Workers' Compensation and Employer's Liability: Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap

employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	**Policy limits of not less than:**
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Jones Act (if applicable)	
Bodily injury by accident—each accident	Not Applicable
Bodily injury by disease—aggregate	Not Applicable
Employer's Liability	
Each accident	$2,000,000.00
Each employee	$2,000,000.00
Policy limit	$2,000,000.00
Stop-gap Liability Coverage	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	Not Applicable

F. Commercial General Liability—Claims Covered: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:

1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
2. damages insured by reasonably available personal injury liability coverage, and
3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

G. Commercial General Liability—Form and Content: Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage.
    a. Such insurance must be maintained for three years after final payment.
    b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
3. Severability of interests and no insured-versus-insured or cross-liability exclusions.

4. Underground, explosion, and collapse coverage.

5. Personal injury coverage.

6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.

7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

H. Commercial General Liability—Excluded Content: The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).

2. Any exclusion for water intrusion or water damage.

3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.

4. Any exclusion of coverage relating to earth subsidence or movement.

5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).

6. Any limitation or exclusion based on the nature of Contractor's work.

7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. Commercial General Liability—Minimum Policy Limits

Commercial General Liability	**Policy limits of not less than:**
General Aggregate	$2,000,000.00
Products—Completed Operations Aggregate	$2,000,000.00
Personal and Advertising Injury	$2,000,000.00
Bodily Injury and Property Damage—Each Occurrence	$2,000,000.00

J. Automobile Liability: Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	**Policy limits of not less than:**
Bodily Injury	
Each Person	$2,000,000.00
Each Accident	$2,000,000.00

Automobile Liability	**Policy limits of not less than:**
Property Damage	
Each Accident	$2,000,000.00
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	$2,000,000.00

K. Umbrella or Excess Liability: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

Excess or Umbrella Liability	**Policy limits of not less than:**
Each Occurrence	Not Applicable
General Aggregate	Not Applicable

L. Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements: Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of $0 after accounting for partial attribution of its limits to underlying policies, as allowed above.

M. Contractor's Pollution Liability Insurance: Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

Contractor's Pollution Liability	**Policy limits of not less than:**
Each Occurrence/Claim	Not Applicable
General Aggregate	Not Applicable

N. Contractor's Professional Liability Insurance: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance must be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. The retroactive date on the policy must pre-date the commencement of furnishing services on the Project.

Contractor's Professional Liability	**Policy limits of not less than:**
Each Claim	Not Applicable
Annual Aggregate	Not Applicable

O. Railroad Protective Liability Insurance: No Supplementary Conditions in this Article.

P. Unmanned Aerial Vehicle Liability Insurance: No Supplementary Conditions in this Article.

Q. Other Required Insurance: No Supplementary Conditions in this Article.

6.04 Builder's Risk and Other Property Insurance: No Supplementary Conditions in this Article.

Installation Floater: No Supplementary Conditions in this Article

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.03 Labor; Working Hours

SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be 7:30 A.M. to 6:00 P.M. Monday - Friday.

2. Owner's legal holidays are: New Year's Day, January 1; Martin Luther King's Birthday, the third Monday in January; Washington's and Lincoln's Birthday, the third Monday in February; Memorial Day, the last Monday in May; Juneteenth, June 19; Independence Day, July 4; Labor Day, the first Monday in September; Christopher Columbus Day, the second Monday in October; Veterans Day, November 11; Thanksgiving Day, the fourth Thursday in November; and Christmas Day, December 25.

3. When a legal holiday occurs on Sunday, the subsequent Monday shall be the observed holiday. When a legal holiday occurs on Saturday, the preceding Friday shall be the observed holiday.

ARTICLE 8—OTHER WORK AT THE SITE

Coordination - No Supplementary Conditions in this Article.

ARTICLE 9—OWNER'S RESPONSIBILITIES

Owner's Site Representative. No Supplementary Conditions in this Article.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.03 Resident Project Representative

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:

1. Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.

2. Safety Compliance: Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.

3. Liaison

    a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.

    b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-site operations.

    c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.

4. Review of Work; Defective Work

    a. Conduct on-site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02 if the Work is in general proceeding in accordance with the Contract Documents.

    b. Observe whether any Work in place appears to be defective.

    c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection, or approval.

5. Inspections and Tests

    a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.

    b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.

6. Payment Requests: Review Applications for Payment with Contractor.

7. Completion

    a. Participate in Engineer's visits regarding Substantial Completion.

    b. Assist in the preparation of a punch list of items to be completed or corrected.

    c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work and prepare a final punch list of items to be completed or corrected by Contractor.

    d. Observe whether items on the final punch list have been completed or corrected.

D. The RPR will not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.

3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction.

5 Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.

7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

SC-11.02.C Insert the following after 11.02.B

C. In complying with any Minnesota Governmental Data Practices Act (MGDPA) request, Contractor will be reimbursed by Change Order only for its reasonable direct labor and other direct expenses, without mark-up or increase in 11.07.C. Fee; but only to the extent that the request is not due to a negligent, intentional, or willful act or omission by the Contractor or other failure to comply with its obligations under this contract.

ARTICLE 12—CLAIMS

No Supplementary Conditions in this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

SC-13.01 Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:

a. For purposes of this paragraph, “small tools and hand tools” means any tool or equipment whose current price if it were purchased new at retail would be less than $500.

13.03 Unit Price Work

SC-13.03 Delete Paragraph 13.03.E in its entirety and insert the following in its place:

E. Adjustments in Unit Price

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:

a. the extended price of a particular item of Unit Price Work amounts to five percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than twenty percent from the estimated quantity of such item indicated in the Agreement; and

b. Contractor’s unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.

2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor’s costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

No Supplementary Conditions in this Article.

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

SC-15.01.D Delete Paragraph 15.01.D.1 in its entirety and replace with the following:

1. The time period for payment shall be in accordance with the Agreement.

SC-15.01.E.1 Add the following new Paragraph 15-01.E.1.m

m. All out-of-state contractors shall comply with all State of Minnesota surety deposit requirements. The OWNER may withhold an additional sum of 8 percent of the amount due the CONTRACTOR from each payment and forward it to the Department of Revenue until the CONTRACTOR's state tax obligations are considered fulfilled unless the CONTRACTOR can show reason for exemption. Exemption will be granted provided the out-of-state CONTRACTOR meets the exemption guidelines established for the Minnesota Department of Revenue. All necessary forms may be obtained from the Minnesota Department of Revenue, Mail Station 4450, St. Paul, Minnesota 55146-4450, or phone 1-800-657-3777 or online at:
http://www.revenue.state.mn.us/businesses/withholding/Pages/Forms.aspx.

SC-15.01 Add the following new Paragraph 15.01.F:

F. For contracts in which the Contract Price is based on the Cost of Work, if Owner determines that progress payments made to date substantially exceed the actual progress of the Work (as measured by reference to the Schedule of Values), or present a potential conflict with the Guaranteed Maximum Price, then Owner may require that Contractor prepare and submit a plan for the remaining anticipated Applications for Payment that will bring payments and progress into closer alignment and take into account the Guaranteed Maximum Price (if any), through reductions in billings, increases in retainage, or other equitable measures. Owner will review the plan, discuss any necessary modifications, and implement the plan as modified for all remaining Applications for Payment.

15.03 Substantial Completion

SC-15.03.A. Delete Paragraph 15.03.A. in its entirety and replace with the following:

A. When Contractor considers the entire Work to be substantially complete Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

SC-15.03.B. Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable

to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

15.06 Final Payment

SC-15.06 Add the following Paragraph 15.06.A.4. Immediately following Paragraph 15.06.A.3.

4. Final payment will not be made to the CONTRACTOR until a certificate showing that the CONTRACTOR has complied with the provisions of M.S.A. 290.92 requiring withholding of income tax on wages at the source. Said certificate shall be executed by the Commissioner of Revenue. Forms for certification may be obtained from the Commissioner of Revenue, Centennial Building, St. Paul, Minnesota 55145.

15.08 Correction Period

SC-15.08 Add the following new Paragraph 15.08.G:

G. The correction period specified as one year after the date of Substantial Completion in Paragraph 15.08.A of the General Conditions is hereby revised to be the number of years set forth in SC-6.01.B.1; or if no such revision has been made in SC-6.01.B, then the correction period is hereby specified to be 2 years after Substantial Completion.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

No Supplementary Conditions in this Article.

ARTICLE 18—MISCELLANEOUS

No Supplementary Conditions in this Article.

EXHIBIT A —SOFTWARE REQUIREMENTS FOR ELECTRONIC DOCUMENT EXCHANGE

Item	Electronic Documents	Transmittal Means	Data Format	Note (1)
a.1	General communications, transmittal covers, meeting notices and responses to general information requests for which there is no specific prescribed form.	Email	Email	
a.2	Meeting agendas, meeting minutes, RFI's and responses to RFI's, and Contract forms.	Email w/ Attachment	PDF	(2)
a.3	Contactor's Submittals (Shop Drawings, "or equal" requests, substitution requests, documentation accompanying Sample submittals and other submittals) to Owner and Engineer, and Owner's and Engineer's responses to Contractor's Submittals, Shop Drawings, correspondence, and Applications for Payment.	Email w/ Attachment	PDF	
a.4	Correspondence; milestone and final version Submittals of reports, layouts, Drawings, maps, calculations and spreadsheets, Specifications, Drawings and other Submittals from Contractor to Owner or Engineer and for responses from Engineer and Owner to Contractor regarding Submittals.	Email w/ Attachment or LFE	PDF	
a.5	Layouts and drawings to be submitted to Owner for future use and modification.	Email w/ Attachment or LFE	DWG	
a.6	Correspondence, reports, and Specifications to be submitted to Owner for future word processing use and modification.	Email w/ Attachment or LFE	DOC	
a.7	Spreadsheets and data to be submitted to Owner for future data processing use and modification.	Email w/ Attachment or LFE	EXC	
a.8	Database files and data to be submitted to Owner for future data processing use and modification.	Email w/ Attachment or LFE	DB	

Notes	
(1)	All exchanges and uses of transmitted data are subject to the appropriate provisions of Contract Documents.
(2)	Transmittal of written notices is governed by Paragraph 18.01 of the General Conditions.

Key	
Email	Standard Email formats (.htm, .rtf, or .txt). Do not use stationery formatting or other features that impair legibility of content on screen or in printed copies
LFE	Agreed upon Large File Exchange method (FTP, CD, DVD, hard drive)
PDF	Portable Document Format readable by Adobe® Acrobat Reader Version**.**
DWG	Autodesk® AutoCAD .dwg format Version.
DOC	Microsoft® Word .docx format Version.
EXC	Microsoft® Excel .xls or .xml format Version.
DB	Microsoft® Access .mdb format Version.

SECTION 00 63 00 - PROPOSAL REQUEST

PROPOSAL REQUEST

- ☐ OWNER
- ☐ ENGINEER
- ☐ CONSULTANTS
- ☐ CONTRACTOR
- ☐ FIELD
- ☐ OTHER

PROJECT:
(name, address)

PROPOSAL REQUEST NO:

OWNER:

DATE:

TO: (CONTRACTOR)

ENGINEER'S PROJECT NO:

CONTRACT FOR:

CONTRACT DATED:

Please submit an itemized quotation for changes in the Contract Sum and/or Time incidental to proposed modifications to the Contract Documents described herein.

THIS IS NOT A CHANGE ORDER NOR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED HEREIN.

Description: (Written Description of the Work)

Attachments: (List Attached Documents that Support Description)

ENGINEER:

DATE:

FIELD ORDER FORM

NO.: _____

Owner:	City of Birchwood Village	Owner's Project No.:	
Engineer:	Bolton & Menk, Inc.	Engineer's Project No.:	0N1.131616
Contractor:		Contractor's Project No.:	
Project:	Wildwood Avenue Lift Station Replacement		
Contract Name:			
Date Issued:		Effective Date of Field Order:	

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s):

Drawing(s) / Details (s):

Description:

[Description of the change to the Work]

Attachments:

[List documents supporting change]

Issued by Engineer

By: _____

Title: _____

Date: _____

WORK CHANGE DIRECTIVE FORM

NO.: _____

Owner:	City of Birchwood Village, MN	Owner's Project No.:	
Engineer:	Bolton & Menk, Inc.	Engineer's Project No.:	0N1.131616
Contractor:		Contractor's Project No.:	
Project:	Wildwood Avenue Lift Station Replacement		
Contract Name:			
Date Issued:		Effective Date of Work Change Directive:	

Contractor is directed to proceed promptly with the following change(s):

Description:

[Description of the change to the Work]

Attachments:

[List documents related to the change to the Work]

Purpose for the Work Change Directive:

[Describe the purpose for the change to the Work]

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: $_____ **[increase] [decrease] [not yet estimated]**.

Contract Time: _____ days **[increase] [decrease] [not yet estimated]**.

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

	Recommended by Engineer	Authorized by Owner
By:	_____	_____
Title:	_____	_____
Date:	_____	_____

CHANGE ORDER FORM

NO.: _____

Owner:	City of Birchwood Village	Owner's Project No.:	
Engineer:		Engineer's Project No.:	0N1.131616
Contractor:		Contractor's Project No.:	
Project:	Wildwood Avenue Lift Station Replacement		
Contract Name:			
Date Issued:		Effective Date of Change Order:	

The Contract is modified as follows upon execution of this Change Order:

Description:

[Description of the change]

Attachments:

[List documents related to the change]

Change in Contract Price	**Change in Contract Times [State Contract Times as either a specific date or a number of days]**
Original Contract Price: $ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. **[Number of previous Change Order]**: $ _____	**[Increase] [Decrease]** from previously approved Change Orders No.1 to No. **[Number of previous Change Order]**: Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: $ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: $ _____	**[Increase] [Decrease]** this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: $ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

	Recommended by Engineer (if required)	Accepted by Contractor
By:	_____	_____
Title:	_____	_____
Date:	_____	_____
	Authorized by Owner	Approved by Funding Agency (if applicable)
By:	_____	_____
Title:	_____	_____
Date:	_____	_____

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	City of Birchwood Village, MN	Owner's Project No.:	
Engineer:	Bolton & Menk, Inc.	Engineer's Project No.:	0N1.131616
Contractor:		Contractor's Project No.:	
Project:	Wildwood Avenue Lift Station Replacement		
Contract Name:			

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: [Enter date, as determined by Engineer]

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: ☐ None ☐ As follows:

[List amendments to Owner's Responsibilities]

Amendments to Contractor's Responsibilities: ☐ None ☐ As follows:

[List amendments to Contractor's Responsibilities]

The following documents are attached to and made a part of this Certificate:

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

SECTION 00 80 10 - RESIDENT PROJECT REPRESENTATIVE

PART 1 -- GENERAL

1.1 RESIDENT PROJECT REPRESENTATIVE

A. If OWNER and ENGINEER agree, the ENGINEER will furnish a Resident Project Representative (RPR), assistants, and other field staff to assist ENGINEER in observing the performance of the Work of the CONTRACTOR.

1.2 LIAISON WITH THE ENGINEER

A. Through more extensive on-site observations of the Work in progress and field checks of materials and equipment by the RPR and assistants, ENGINEER endeavors to provide further protection for OWNER against defects and deficiencies in the Work; but, the furnishing of such services will not make ENGINEER responsible for or give ENGINEER control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs, or responsibility for CONTRACTOR'S failure to perform the Work in accordance with the Contract Documents.

1.3 DUTIES AND RESPONSIBILITIES OF THE RPR

A. The duties and responsibilities of the RPR are limited to those of ENGINEER in the construction Contract Documents, and are further limited and described as follows:

B. General

1. RPR is ENGINEER'S agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of the CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

C. Duties and Responsibilities of RPR

1. **Schedules:** Review the progress schedule, schedule of Shop Drawing submittals, and schedule of values prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.

2. **Conferences and Meetings:** Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences, and other project-related meetings, and prepare and circulate copies of minutes thereof.

3. Liaison:

(a) Serve as ENGINEER'S liaison with CONTRACTOR, working principally through CONTRACTOR'S superintendent and assist in understanding the intent of the Contract Documents; and assist ENGINEER in serving as OWNER'S liaison with CONTRACTOR when CONTRACTOR'S operations affect OWNER'S on-site operations.

(b) Assist in obtaining from OWNER additional details or information, when required for the proper execution of the Work.

4. Shop Drawings and Samples:

(a) Record date of receipt of Shop Drawings and samples.

(b) Receive samples which are furnished at the site by CONTRACTOR, and notify ENGINEER of availability of samples for examination.

(c) Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by ENGINEER.

5. Review of Work, Rejection of Defective Work, Inspections, and Tests:

   (a) Conduct on-site observations of the Work in progress to assist ENGINEER in determining if the Work is, in general, proceeding in accordance with the Contract Documents.

   (b) Report to ENGINEER whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

   (c) Verify that tests, equipment, and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record, and report to ENGINEER appropriate details relative to the test procedures and startups.

   (d) Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections, and report to ENGINEER.

6. **Interpretation of Contract Documents:** Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by ENGINEER.

7. **Modifications:** Consider and evaluate CONTRACTOR'S suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.

8. Records:

   (a) Maintain orderly files for correspondence, reports or job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER'S clarifications and interpretations of the Contract Documents, progress reports, and other project-related documents.

   (b) Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures.

   (c) Record names, addresses, and telephone numbers of all contractors, subcontractors, and major suppliers of materials and equipment.

9. Reports:

   (a) Furnish ENGINEER periodic reports, as required, of the progress of the Work and of CONTRACTOR'S compliance with the progress schedule and schedule of Shop Drawing and sample submittals.

   (b) Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.

   (c) Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to ENGINEER Change Orders, Work Directive Changes, and Field Orders.

   (d) Report immediately to ENGINEER and OWNER upon the occurrence of any accident.

10. **Payment Requests:** Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the site but not incorporated in the Work.

11. **Certificates, Maintenance, and Operation Manuals:** During the course of the Work, verify that certificates, maintenance and operation manuals, and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the Work.

12. Completion:

    (a) Conduct final inspection in the company of ENGINEER, OWNER, and CONTRACTOR and prepare a final list of items to be completed or corrected.

    (b) Observe that all items on the final list have been completed or corrected and make recommendations to the ENGINEER concerning acceptance.

D. Limitations of Authority

1. Resident Project Representative:

    (a) Shall not authorize any deviation from the Contract Document or substitution of materials or equipment, unless authorized by ENGINEER.

    (b) Shall not exceed limitations of ENGINEER'S authority as set forth in the Contract Documents.

    (c) Shall not undertake any of the responsibilities of CONTRACTOR, subcontractor, or CONTRACTOR'S superintendent.

    (d) Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction unless such advice or directions are specifically required by the Contract Documents.

    (e) Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.

PART 2 -- NOT USED

PART 3 -- NOT USED

****** END OF SECTION ******

SECTION 00 92 10 – EPA FUNDING REQUIREMENTS

ARTICLE 1—EPA FUNDING REQUIREMENTS

A. Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319 preview citation details, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

B. Recipients are responsible for complying with the procedures provided in 29 CFR 1.6 when soliciting bids and awarding contracts.

C. By accepting this contract, the contractor acknowledges and agrees to the terms provided in the DBRA Requirements for Contractors and Subcontractors Under EPA Grants.

D. American Iron and Steel (AIS)

The Contractor acknowledges to and for the benefit of the City of Birchwood Village and the Environmental Protection Agency (the "Funding Authority") that it understands the goods and services under this Agreement are being funded with monies made available by the Environmental Protection Agency (EPA) that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

E. Build America, Buy America (BABA)

The Contractor acknowledges to and for the benefit of the City of Birchwood Village and the EPA that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy

America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority that (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

F. Disadvantaged Business Enterprise (DBE) Requirements

1. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in termination of this contract or other legally available remedies

2. The prime contractor must follow, document, and maintain documentation of their good faith efforts as listed below to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project by increasing DBE awareness of procurement efforts and outreach. This applies to procurement for construction, equipment, supplies, and services.

    a. Recipients must ensure that opportunities are made to DBEs, whenever possible, through outreach and recruitment activities. This will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

    b. Make information on forthcoming opportunities available to DBEs and arrange timeframes for and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for minimum of 30 calendar days before the bid or proposal closing date.

    c. Consider in the contract process whether firms competing for large contracts could sub-contract with DBEs. For EPA grant recipients, this will include dividing total

requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

d. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

e. Use the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency of the Department of Commerce

f. If the prime contractor awards sub-contracts, require that the prime contractor take the above steps.

3. The prime contractor shall adhere to the following contract administration requirements:

a. Require the recipient's prime contractor to pay its subcontractor for satisfactory performance no later than 30 days from the prime contractor's receipt of payment from the recipient.

b. Require the recipient's prime contractor to notify the recipient in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor.

c. Require the recipient's prime contractor to employ the six good faith efforts described in §33.301 if solicitating a replacement subcontractor.

d. If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts described in §33.301 if soliciting a replacement subcontractor.

e. Ensure that each procurement contract it awards contains the term and condition specified in Appendix A concerning compliance with the requirements of this part.

f. Ensure that the term and condition in Appendix A is included in each procurement contract awarded by an entity receiving an identified loan under a financial assistance agreement to capitalize a revolving loan fund.

4. It is important for grantees and subrecipients and their contractor(s) to maintain documentation of their efforts to comply with the DBE requirements. Grantees must report to EPA on their utilization of DBEs for procurements of goods and services using EPA form 5700-52A when the combined total of funds budgeted for procurement exceeds the Simplified Acquisition Threshold (SAT) (currently set at $250,000).

5. The prime contractor must maintain all records documenting its compliance with the requirements of this program and accordance with applicable record retention requirements for the recipient's financial assistance agreement (exemptions found in 40 CFR §33.501(c))

a. Recipients of Continuing Environmental Program Grants or other annual grants must create and maintain a bidders list. The list s only need to be maintained until the grant project period has expired and the recipient is no longer receiving EPA funding under the grant.

b. Recipients of agreements to capitalize a revolving loan fund also must require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding

requirements. The list only need to be maintained until the project period for the identified loan has ended.

c. The following information must be obtained from all prime subcontractors:

1) Entity's name with point of contact

2) Entity's mailing address, telephone number, and e-mail address

3) The procurement on which the entity bid or quoted, and when

4) Entity's status as an MBE/WBE or non-MBE/WBE

G. Documents included in Appendix A:

1. *Equal Opportunity Clause provided under 41 CFR 60-1.4(b)*

   a. *Includes Equal Employment Opportunity (Executive Order 11246)*

2. *Davis-Bacon Act, as amended (40 U.S.C. 3141-3148)*

3. *Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708).*

4. *Rights to Inventions Made Under a Contract or Agreement (37 CFR Part 401)*

5. *Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251–1387)*

6. *Debarment and Suspension (Executive Orders 12549 and 12689)*

7. *Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)*

8. *Prohibition on certain telecommunications and video surveillance services or equipment (Huawei Technologies Company, ZTE Corporation or any subsidiary or affiliate of such entities) (2 CFR 200.216)*

9. *Procurement of Recovered Materials – Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (2 CFR 200.323)*

10. *Domestic preferences for procurements (2 CFR 200.322)*

11. *Micro-Purchase Acquisition Threshold (2 CRF 200.320)*

12. *Federal Water Pollution Control Act (33 U.S.C. 1251-1387)*

13. *Resource Conservation and Recovery Act (2 CFR 200.323)*

14. *Build America, Buy America Act (2 CFR 200, Part 184)*

15. *DBE Overview and Requirements (40 CFR Part 33.202 and 33.203)*

16. *Federal Wage Rates*

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 -- GENERAL

1.1 GENERAL

A. The WORK to be performed under this Contract shall consist of furnishing all plant, tools, equipment, materials, supplies, and manufactured articles and for furnishing all transportation and services, including fuel, power, water, and essential communications, and for the performance of all labor, work, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The WORK shall be complete, and all work, materials, and services not expressly shown or called for in the Contract Documents which may be necessary for the complete and proper construction of the WORK in good faith shall be performed, furnished, and installed by the CONTRACTOR as though originally so specified or shown, at no increase in cost to the OWNER.

1.2 PROJECT LOCATION

A. The project is located in the City of Birchwood Village, Minnesota, which is located in Washington County. The project location is shown on the vicinity map in the design drawing set.

1.3 PROJECT DESCRIPTION

A. The work hereafter referred to requires the complete construction and start-up necessary for the facility with all required necessary equipment, generally described, but not limited to, in the following paragraphs:

1. Removal of existing lift station components, including pumps, piping and fittings, controls, and other miscellaneous items.
2. Install lift station and controls, install new upstream manhole, install gravity sewer, and modify existing manhole.
3. Install new DIP forcemain, connect to existing forcemain.
4. Site work and restoration including concrete work, bituminous paving and curb, all in accordance with Plans and Specifications

1.4 ORDER OF THE WORK

A. The work shall be carried out at such places on the project and also in such order or precedence as may be found necessary by the Engineer to expedite the completion of the project. After work has begun on any portion of the project, it shall be carried forward to its final completion. All work shall conform to the provisions of the approved Contractor's schedule.

1.5 INTERFERENCE WITH WORK ON UTILITIES

A. The Contractor shall cooperate fully with all utility forces of the OWNER or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the work, and shall schedule the work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.6 SEQUENCE OF CONSTRUCTION

A. The Contractor shall at all times conduct his operations so as to minimize any impact on existing collection system, property access, and utility supply. At no time shall the Contractor's operations cause the OWNER to abandon any services or surcharge the sanitary sewer system.

B. The Contractor shall coordinate all process interruptions with the OWNER, Engineer, and operations staff. All construction shall be coordinated with the plant operations staff at all times. Any night work and overtime payments that may be required for modifications performed at low flow shall be considered to have been included in the price bid for work.

1.7 CONTRACTOR USE OF PROJECT SITE

A. The CONTRACTOR's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices.

1.8 OWNER USE OF THE PROJECT SITE

A. The OWNER may utilize all or part of the existing site and existing facilities during the entire period of construction. The CONTRACTOR shall cooperate with the OWNER to minimize interference with the CONTRACTOR's operations and to facilitate the OWNER's operations. In any event, the OWNER shall be allowed access to the project site during the period of construction.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 13 10 - COORDINATION

PART 1 -- GENERAL

1.1 SEQUENCE OF CONSTRUCTION

A. A project management network scheduling tool (i.e., critical path (CPM), etc.) or a DETAILED bar chart shall be employed by the Contractor for cost value reporting, planning, and scheduling of all work required under the Contract Documents. This schedule shall show the order in which the Contractor proposes to execute the work with dates on which it proposes to start the various phases of the work and the estimated completion date of each phase. The Contractor shall submit a preliminary version of its intended schedule within 10 working days following the *Notice of Award* on a form of its own choosing.

B. Unless otherwise approved by the Engineer, the schedule shall also include an anticipated payment schedule for the volume of work to be completed each month. This schedule shall indicate the Contractor's intention and ability to complete the work within the contract times, as specified in Article 3 of the Agreement.

C. The Preconstruction Conference will not be conducted until the schedule is submitted. In addition, no construction staking shall be provided until the schedule is submitted by the Contractor and reviewed by the Engineer.

1.2 WORKING HOURS

A. Except in connection with safety or emergency situations, all work at the site shall be performed from 7:30 a.m. to 6 p.m. Monday through Friday.

B. The Contractor shall notify the Owner and Engineer of any work planned on Saturday, Sunday, or any legal holiday at least 48 hours prior to such work.

C. The Contractor shall coordinate with OWNER any construction or hauling activity in the vicinity of churches, schools, medical facilities, and funeral homes. The Contractor shall be cognizant of the disruptive effects of continued construction during funerals. The Owner reserves the right to temporarily stop construction within one block of, and during the time of, any funeral procession. No compensation shall be granted to the Contractor due to temporary delays caused by funerals.

1.3 COORDINATION WITH UTILITY COMPANIES

A. The contractor is responsible for working with public and private utility companies in protecting and/or relocating existing or new utility lines located near and affected by this construction.

1. Coordination with the utility companies is very important and should be considered in planning the work and the associated extra costs involved.

2. Private utility companies are responsible for their own lines and are so obligated under City Code Agreements to protect and/or relocate their utilities if required by the City (Owner).

B. The Contractor shall also work with the City's maintenance personnel to provide for scheduled water shutdowns in a given area and to provide for continued water service to the properties included in the project throughout the duration of the project.

C. The Contractor shall work with all utility companies, as necessary, to allow for installation and for maintenance of service of gas, power, lighting, telephone, cable TV, etc. in the boulevards or across

the streets prior to final shaping of aggregate base and/or topsoil. This coordination with the utility companies is the responsibility of the Contractor and is considered incidental to the construction and no additional compensation shall be granted.

1.4 COOPERATION WITH OTHER CONTRACTORS

A. The Contractor shall cooperate with other contractors performing construction on other projects in the vicinity of this project, including but not limited to allowing access for the delivery of equipment and materials.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01 29 00 - MEASUREMENT AND PAYMENT

PART 1 -- GENERAL

1.1 SCHEDULE OF VALUES

A. Within ten days after the Effective Date of the Agreement, the CONTRACTOR shall prepare and submit to the ENGINEER for approval, a detailed Schedule of Values or costs by a breakdown by major specification sections of the total contract price. The Schedule of Values shall be sufficiently detailed to provide a basis for progress payments.

1.2 REQUEST FOR PAYMENTS

A. Applications for payment shall be submitted in accordance with the Schedule of Values and General Conditions and shall be submitted on forms approved by the ENGINEER. Application for payment shall be made at least two days prior to the monthly Construction Progress Meeting.

B. The CONTRACTOR shall furnish the ENGINEER promptly, upon request, with all information and records necessary to determine the cost of the work for purposes of estimating monthly payments, including a satisfactory itemized statement of the actual cost of all acceptable materials delivered by the CONTRACTOR to the site as required by the General Conditions.

1.3 ENGINEER'S PAY ESTIMATE

A. On or about the 25th day of each month, the ENGINEER will prepare and certify to the OWNER, an estimate of the cumulative amount and value of work performed by the CONTRACTOR up to that date. Said amount will include all acceptable materials and equipment delivered to the site of the work as defined in the General Conditions. The said value will be based on certified copies of invoices delivered by the CONTRACTOR to the ENGINEER. To this figure will be added all amounts due or paid to the CONTRACTOR for the performance of extra work in accordance with change orders.

B. The ENGINEER's estimate of the monthly payment due to the CONTRACTOR will not be required to be made by strict measurement, and an approximate estimate will suffice. The monthly payments may be withheld or reduced if in the ENGINEER's opinion, the CONTRACTOR is not diligently or efficiently endeavoring to comply with the intent of the contract, or if the CONTRACTOR fails to pay his labor and material bills as they become due.

C. No monthly payment shall be construed as an acceptance of the work or of any portion of the work, nor shall the making of such payment preclude the OWNER from demanding and recovering from the CONTRACTOR any damages caused by the CONTRACTOR's failure to comply with the requirements of the Contract.

1.4 PROGRESS PAYMENT

A. Progress payments will become due 30 days after the presentation of the Application for Payment with the ENGINEER's recommendation as required by the General Conditions and as modified by the Supplementary Conditions.

B. The schedule of Progress Payments may be altered by the Agreement or Purchase Order.

1.5 FINAL PAYMENT

A. Final payment will be made as specified in Section 01 77 00 and subject to provisions of the General Conditions and as modified by the Supplementary Conditions.

1.6 CHANGE ORDER PROCEDURES

A. Changes in the Work will be authorized by a written Change Order or Engineer's Field Order.

B. Changes in contract price will be made by a written Change Order.

C. The ENGINEER or OWNER will request an official proposal for change orders.

D. Refer to the General Conditions for change order details.

E. Blank copies of a Change Order, Proposal Request, and Engineer's Field Order are included in the project specifications.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 31 19 - PROJECT MEETINGS

PART 1 -- GENERAL

1.1 PRECONSTRUCTION CONFERENCE

A. Prior to the start of construction, a joint meeting will be held with representatives of the Contractor, the OWNER, the Engineer, and any other interested parties. This meeting is intended to introduce the various key personnel from each organization and to discuss the start of construction, order of work, labor and legal requirements, provisions of State labor laws, insurance requirements, method of payment, weekly payrolls, shop drawing requirements, protection of existing facilities, location of disposal and stockpile areas, and other pertinent items associated with the project.

B. The Contractor shall be required to discuss his proposed detailed construction progress schedule, as presented in Section 01 33 00, and Schedule of Values as required by paragraph 2.05.A.3. of the General Conditions at this conference. All such construction schedules shall be subject to the approval of the Engineer and applicable public agencies.

1.2 CONSTRUCTION PROGRESS MEETINGS

A. Meetings may be held at least monthly or as needed between the OWNER, Contractor, and Engineer for the purpose of reviewing the project schedule, the status of the project, and the Contractor's request for payment.

B. The Contractor shall submit, within at least two working days before the Construction Progress Meeting, a brief written report as to the status of the project in relation to the construction schedule and issues to be discussed at the Construction Progress Meeting.

C. The Contractor shall submit to the Engineer, at least two working days before the monthly progress meeting, a request for payment.

1.3 FINAL PROJECT COMPLETION MEETINGS

A. Final project completion meetings shall be held between the Contractor, OWNER, Engineer, and any other interested parties to determine the final acceptance of the project. The final project completion meeting shall follow the loan or grant issuing agency and state regulatory agency completion of construction policy.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 32 00 - SEQUENCE OF CONSTRUCTION

PART 1 -- GENERAL

1.1 INTERRUPTION OF SERVICES

A. The Contractor shall coordinate all process interruptions with the OWNER, Engineer, and operations staff. All construction shall be coordinated with the operations staff at all times. Construction, if it requires interruption, shall not proceed until written approval has been given by the Engineer. Any night work and overtime payments required for modifications performed at a low flow or demand period shall be considered to have been included in the price bid for work.

1.2 SEQUENCE OF CONSTRUCTION

A. General

1. Work under the contract shall be scheduled and performed in such a manner as to result in the least possible disruption to the operation of the existing system or treatment facilities. The Contractor shall submit to the Engineer a construction schedule covering the entire work before any work is commenced. The schedule shall be complete with estimated dates for the start and finish of each item of work. The following construction constraints should be used as a guideline in preparing the scheduling. Deviation from these suggested sequences is permitted if techniques and methods known to the Contractor will result in reducing the disruption of the facility operation and is concurred with by the Engineer.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

***** END OF SECTION *****

SECTION 01 33 00 - SUBMITTALS

PART 1 -- GENERAL

1.1 LIST OF SUBCONTRACTORS AND SUPPLIERS

A. Prior to the execution and delivery of the contract, the successful bidder shall submit a complete list of all sub-contractors and suppliers with whom he proposes to contract. The list shall be divided into sections corresponding to the specification divisions and shall state the name, address, and telephone numbers, together with work or items to be furnished. The list cannot be revised without written approval by the OWNER. The CONTRACTOR is responsible for compliance with specified requirements by all sub-contractors.

B. This list shall be submitted in addition to or as a supplement to any similar lists required to be submitted with the bid.

1.2 CONSTRUCTION PROGRESS SCHEDULE

A. A project management tool such as a bar chart shall be employed by the CONTRACTOR for cost value reporting, planning, and scheduling of all work required under the Contract Documents.

B. **Time of Submittal:** Within 10 working days after the Effective Date of the Agreement, the CONTRACTOR shall submit for approval of the ENGINEER a bar chart diagram describing the activities to be accomplished in the project and their dependency relationships. The schedule produced and submitted shall indicate a project completion date on or before the contract completion date. The ENGINEER, within 10 working days after receipt of the bar chart diagram, shall meet with a representative of the CONTRACTOR to review the proposed plan and schedule.

C. **Review Period:** Within five working days after the conclusion of the ENGINEER's review period, the CONTRACTOR shall revise the bar chart diagram as required and re-submit the diagram.

D. **Acceptance:** When the initial construction schedule has been accepted, the CONTRACTOR shall submit to the ENGINEER four copies of the accepted schedule.

E. **Construction Schedule Revisions:** The ENGINEER may require the CONTRACTOR to modify any portions of the bar chart schedule that become infeasible because of "activities behind schedule" or for any other valid reason. An activity that cannot be completed by its original latest completion date shall be deemed to be behind schedule. Failure to submit a revised project schedule where so requested by the ENGINEER shall be cause for withholding a requested progress payment.

F. **Revision Due to Change Order:** Upon approval of a change order, the approved change shall be reflected in the next bar chart submittal by the CONTRACTOR.

1.3 SCHEDULE OF VALUES

A. Schedule of values shall be submitted as specified in Section 01 29 00 "Measurement and Payment".

1.4 CONTRACTOR'S DAILY REPORTS

A. The CONTRACTOR shall complete a daily report on forms furnished by the ENGINEER indicating manpower, equipment, and subcontractors involved in the performance of the work.

B. CONTRACTOR shall submit copies of daily report forms to the ENGINEER monthly.

1.5 MONTHLY PROJECT STATUS REPORT

A. The CONTRACTOR shall submit, within two working days before the Construction Progress Meeting, a brief written Monthly Project Status Report.

B. The Monthly Project Status Report shall discuss the status of the project in relation to the construction progress schedule and identify issues to be discussed at the Monthly Construction Progress Meeting.

1.6 SHOP DRAWINGS

A. The CONTRACTOR shall submit, within 10 days after the effective date of the agreement, a complete list of equipment and materials requiring shop drawing approval. The term "shop drawing" as used herein, shall be understood to include detailed design calculations, fabrication and installation drawings, erection drawings, lists, graphs, operating instructions, catalog sheets, data sheets, and similar items. Unless otherwise required, said drawings shall be submitted at a time sufficiently early to allow review of same by the ENGINEER and to accommodate the rate of construction progress required under the contract. The shop drawing list shall contain an estimated submittal date for each piece of equipment. The ENGINEER shall return prints of each shop drawing with his comments within 30 calendar days after receipt of shop drawings from the CONTRACTOR. If the CONTRACTOR and OWNER determine that a speedy review of a submittal is critical to the progress of the project, then he should notify the ENGINEER at least 15 days in advance and request a speedy review of the submittal. The ENGINEER will return the submittal within 15 days of such critical submittals. If the review by the ENGINEER is delayed beyond a reasonable period, usually 60 days, then the CONTRACTOR shall notify the ENGINEER in writing that unless the said shop drawing is returned to the contractor within three (3) business days or there may be a delay CONTRACTOR's construction schedule.

B. The CONTRACTOR shall review all the submittals before forwarding them to the ENGINEER for review. The submittals shall be in conformance with the CONTRACT DOCUMENTS, and any minor variations shall be noted in the transmittal form. It is considered reasonable that the CONTRACTOR shall make a complete and acceptable submittal by the second submission of drawings. The OWNER reserves the right to withhold money due to the CONTRACTOR to cover additional costs of the ENGINEER's review beyond the second submission. All submittals shall be submitted electronically via email, file sharing link, or Submittal Exchange, if required, as a searchable pdf document. The CONTRACTOR shall make any corrections required by the ENGINEER. All shop drawings shall be submitted through the GENERAL CONTRACTOR and be accompanied by the ENGINEER's standard shop drawing transmittal form. All resubmittals shall include one copy of the previously rejected submittal.

C. All shop drawings shall be submitted electronically utilizing an electronic submittal system as follows:

1. ELECTRONIC SUBMITTAL PROCEDURES – PROCORE OR SUBMITTAL EXCHANGE

(a) Summary:

(1) Shop drawing and product data submittals shall be transmitted to Engineer in electronic (PDF) format using Procore or Submittal Exchange, a website service designed specifically for transmitting submittals between construction team members.

(2) The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.

(3) The electronic submittal process is not intended for color samples, color charts, or physical material samples

(b) Procedures:

(1) Submittal Preparation – The contractor may use any or all of the following options:

1) Subcontractors and Suppliers provide electronic (PDF) submittals to the Contractor via the website.

2) Subcontractors and Suppliers provide paper submittals to General Contractor, who electronically scans and converts them to PDF format.

3) Subcontractors and Suppliers provide paper submittals to Scanning Service, which electronically scans and converts to PDF format.

(2) Contractor shall review and apply an electronic stamp certifying that the submittal complies with the requirements of the Contract Documents, including verification of manufacturer/product, dimensions, and coordination of information with other parts of the work.

(3) Contractor shall transmit each submittal to Engineer using the website.

(4) Engineer review comments will be made available on the website for downloading. The contractor will receive email notifications of the completed review.

(5) Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the Contractor.

(6) Contractor shall submit three paper copies of reviewed submittals upon approval of shop drawings to Engineer.

(c) Costs:

(1) General Contractor shall include the full cost of submittal management project subscription in their Lump Sum Base Bid. This cost shall be included in the contract amount.

(2) Internet Service and Equipment Requirements:

a. Email address and Internet access at the Contractor's main office.

b. Adobe Acrobat (www.adobe.com), Bluebeam PDF Revu (www.bluebeam.com), or other similar PDF review software for applying electronic stamps and comments.

(d) Timeline and Closeout

(1) The submittal management project subscription shall be maintained and active until the final completion of the project.

(2) CONTRACTOR shall verify all files have been transferred to ENGINEER and CONTRACTOR prior to closeout.

D. Revisions indicated on shop drawings shall be considered as changes necessary to meet the requirements of the Contract Drawings and Specifications and shall not be taken as the basis of claims for extra work. The CONTRACTOR shall have no claim for damages or extension of time due to any delay resulting from the CONTRACTOR's having to make the required revisions to shop drawings. The review of said drawings by the ENGINEER will be limited to checking for general agreement with the specifications and drawings and shall in no way relieve the CONTRACTOR of responsibility for errors or omissions contained therein, nor shall such review operate to waive or modify any provision contained in the Specifications or Contract Drawings. Fabricating dimensions, quantities of material, applicable code requirements, and other contract requirements shall be the CONTRACTOR's

responsibility. The ENGINEER will not be responsible for any delays arising from the equipment supplier's delay in making the changes requested to meet the specifications.

E. Each submittal shall contain data representing only one specification Section.

1.7 SAMPLES

A. Unless otherwise specified, whenever in the Specifications samples are required, the CONTRACTOR shall submit not less than two samples of each such item or material to the ENGINEER for approval at no additional cost to the OWNER.

B. Samples, as required herein, shall be submitted for approval a minimum of 21 days prior to ordering such material for delivery to the job site and shall be submitted in an orderly sequence so that dependent materials or equipment can be assembled and reviewed without causing delays in the work.

C. All samples shall be individually and indelibly labeled or tagged, indicating thereon all specified physical characteristics and manufacturer's names for identification and submittal to the ENGINEER for approval. Upon receiving approval from the ENGINEER, one set of the samples will be stamped and dated by the ENGINEER and returned to the CONTRACTOR. One set will be retained by the ENGINEER until the completion of the work.

D. Unless otherwise specified, all colors and textures of specified items will be selected by the ENGINEER from the manufacturer's standard colors and standard materials, products, or equipment lines.

1.8 MAINTENANCE MANUALS

A. The CONTRACTOR shall submit to the ENGINEER four (4) copies of the manufacturer's maintenance manuals for all mechanical, electrical, and instrumentation equipment provided under this contract.

B. All maintenance manuals shall be submitted together with a copy of approved shop drawings for the respective item of equipment. Maintenance manuals shall be submitted prior to the 75 percent project completion stage.

C. The maintenance manuals shall be complete with recommended maintenance procedures, recommended spare parts, and complete assembly and disassembly instructions.

D. Operation and maintenance instructions shall include, as a minimum, the following data for each item of mechanical, electrical, and instrumentation equipment:

1. An itemized list of all data provided.
2. Name and location of the manufacturer, the manufacturer's local representative, the nearest supplier, and spare parts warehouse.
3. Approved submittal information applicable to operation and maintenance.
4. Recommended installation, adjustment, start-up, calibration, and troubleshooting procedures.
5. Tabulation of proper setting for all pressure relief valves (low/high), pressure switches, and other related equipment protection devices.
6. Recommended lubrication, including lubricant SAE grade, frequency of required lubrication, and an estimate of yearly quantity needed.
7. Recommended step-by-step procedures for all modes of operation.
8. Complete internal and connection wiring diagrams, including a list of all electrical relay settings.
9. Recommended preventive maintenance procedures and schedule.

10. Complete parts lists, by generic title and identification number, with exploded views of each assembly.
11. Recommended spare parts.
12. Disassembly, overhaul, and reassembly instructions.

E. The CONTRACTOR shall furnish four (4) complete sets of maintenance manuals bound in black expandable three post binders. Each set shall include a table of contents and a quick reference list of local manufacturer's representatives.

1.9 RECORD DRAWINGS

A. The CONTRACTOR shall maintain at the construction site one complete set of drawings suitably marked to show all deviations from the original set of drawings and other information as specified. Supplementary sketches shall be included, if necessary, to clearly indicate all work as constructed.

B. All work shall be clearly shown, and the record drawings shall be satisfactory to the OWNER in order to ensure that adequate information is indicated to show the actual construction. The complete set of the record drawings shall be submitted to the ENGINEER prior to the submittal of the final Application for Payment. Failure of the CONTRACTOR to maintain an up-to-date set of record drawings on the project site shall be a reason to withhold payments. All underground lines shall be determined from the record drawings.

1.10 MATERIAL SAFETY DATA SHEETS

A. The Contractor shall submit two copies of material safety data sheets for each material on-site to the OWNER.

B. The Contractor shall maintain an orderly file of material safety data sheets at the job site.

1.11 START-UP REPORTS

A. The CONTRACTOR shall submit copies of all equipment testing and start-up reports for process equipment, motors, HVAC equipment, electrical, generators, etc., as required.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 35 00 – CULTURAL RESOURCES PROTECTION

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. The Contractor's attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470) and PRM 75 27, which provides for the preservation of potential historical, architectural, archaeological, or cultural resources (hereinafter called "cultural resources").

B. The Contractor shall conform to the applicable requirements of the National Historic Preservation Act of 1966 as it relates to the preservation of cultural resources and fair compensation to the Contractor for delays resulting from such cultural resources investigations.

1.2 STOP WORK PROCEDURES

A. In the event potential cultural resources are discovered during subsurface excavations at the site of construction, the following procedures shall be instituted:

1. The Engineer will issue a Stop Work order directing the Contractor to cease all construction operations at the location of such potential cultural resources.

2. Such Stop Work Order shall be effective until such time as a qualified archaeologist can be called to assess the value of these potential cultural resources and make recommendations to the State Archaeologist. Any Stop Work Order shall contain the following:

(a) A clear description of the work to be suspended.

(b) Any instructions regarding the issuance of further orders by the Contractor for material services.

(c) Guidance as to the action to be taken on subcontracts.

(d) Any suggestions to the Contractor on how to minimize his costs.

B. Estimated duration of the temporary suspension.

1. If the archaeologist determines that the potential find is a bona fide cultural resource, at the direction of the State Archaeologist, the Engineer will extend the duration of the Stop Work Order in writing, and the Contractor shall suspend work at the location of the find. An equitable adjustment of the construction contract time will be made.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 41 00 - REGULATORY REQUIREMENTS

PART 1 -- GENERAL

1.1 SUMMARY

A. Applicable codes and standards referred to in these specifications shall establish minimum requirements for equipment, materials, and construction and shall be superseded by more stringent requirements of drawings and specifications when and where they occur.

B. All equipment furnished and installed under the contract shall be designed, fabricated, assembled, installed, and placed into service. The equipment will conform to the applicable provisions of the Federal and State Safety and Health Standards, including but not limited to Federal Occupational Safety and Health Regulations for Construction; the Division of Environmental Health, Minnesota Department of Health; the Minnesota Pollution Control Agency; the Department of Natural Resources; the Minnesota Department of Transportation, Division of Highways; the Minnesota Industrial Commission and ordinances of the City that apply to this work.

C. All construction methods and tools shall comply with commonly accepted standards for safety and health of personnel engaged in construction, including but not limited to Federal Occupational Safety and Health Regulations for Construction; the Division of Environmental Health, Minnesota Department of Health; the Minnesota Pollution Control Agency; the Department of Natural Resources; the Minnesota Department of Transportation, Division of Highways; the Minnesota Industrial Commission and ordinances of the City that apply to this work.

D. Any conflicts between specifications and applicable codes and standards shall be referred to the Engineer.

1.2 PERMITS OBTAINED BY OWNER

A. The Owner has applied for the following permits from appropriate authorities. It is anticipated that permission to proceed will be authorized prior to the execution of the Contract. The Contractor shall perform all work and conduct itself in full accordance with the requirements of the applicable permit:

1. NONE.

B. Contractor shall be responsible for posting any bonds, which may be required as a condition to any permit, and for securing and paying the cost of any other permits not mentioned above, which may be required.

1.3 PERMITS OBTAINED BY THE CONTRACTOR

A. The Contractor shall secure and pay the cost of these, and any other permits not mentioned, which may be required, including, but not limited to:

1. Minnesota Pollution Control Agency (MPCA) - General Storm Water Permit - The Contractor and Owner shall jointly apply for this permit once the contract is awarded.

2. Dewatering Permit

3. Work within City right-of-way permit.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01 42 00 - REFERENCES

PART 1 -- GENERAL

1.1 GENERAL

A. Applicable codes and standards referred to in these specifications shall establish minimum requirements for equipment, materials, and construction, and shall be superseded by more stringent requirements of drawings and specifications when and where they occur.

B. Reference to standard specifications of any technical society, organization, or association, or to codes of local or state authorities, shall mean the latest standard, code, specification, or tentative specification adopted and published at the date of taking bids unless specifically stated otherwise.

C. All equipment furnished and installed under the contract shall be so designed, fabricated, assembled, installed, and placed into service that such equipment will conform to the applicable provisions of the Federal and State Safety and Health Standards.

D. All construction methods and tools shall conform to the applicable provisions of the Federal and State Safety and Health Standards, and shall comply with commonly accepted standards for the safety and health of personnel engaged in construction work.

E. In case of conflict between codes, reference standards, drawings, and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the ENGINEER for clarification and directions prior to ordering or providing any materials or labor. The CONTRACTOR shall bid the most stringent requirements.

1.2 TRADE NAMES AND ALTERNATIVES

A. For convenience in designation in the Contract Documents, materials to be incorporated in the WORK may be designated under a tradename or the name of a manufacturer and its catalog information. The use of alternative material which is equal in quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

1. The burden of proof as to the quality and suitability of such alternative equipment products, or other materials shall be upon the CONTRACTOR.

2. The ENGINEER will be the sole judge as to the comparative quality and suitability of such alternative equipment, products, or other materials and its decision shall be final.

B. Wherever in the Contract Documents the name or the name and address of a manufacturer or distributor is given for a product or other material, or if any other source of a product or material is indicated, such information is given for the convenience of the CONTRACTOR only, and no limit, restriction, or direction is indicated or intended thereby, nor is the accuracy or reliability of such information guaranteed. It shall be the responsibility of the CONTRACTOR to determine the accuracy of the information and to identify and locate any such manufacturer, distributor, or other sources of any product or material called for in the Contract Documents.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

****** END OF SECTION ******

SECTION 01 42 13 - ABBREVIATIONS

PART 1 -- GENERAL

1.1 GENERAL

A. Wherever in these Specifications references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user of these specifications, the following acronyms or abbreviations which may appear in these specifications shall have the meanings indicated herein.

1.2 ABBREVIATIONS AND ACRONYMS

10SS	Recommended Standards for Water Works, 2012 Edition (commonly known as Ten States Standards)
AAMA	American Architectural Manufacturers Association
AASHTO	American Association of the State Highway and Transportation Officials
ACI	American Concrete Institute
AFBMA	Anti-Friction Bearing Manufacturer's Association, Inc.
AGA	American Gas Association
AGMA	American Gear Manufacturers' Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
ASA	Acoustical Society of America
ASAE	American Society of Agriculture Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers
ASQC	American Society for Quality Control
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BBC	Basic Building Code, Building Officials, and Code Administrators International
BHMA	Builders Hardware Manufacturer's Association
CBM	Certified Ballast Manufacturers
CEAM	City Engineer's Association of Minnesota
CGA	Compressed Gas Association
CLFMI	Chain Link Fence Manufacturers Institute
CMA	Concrete Masonry Association

CRSI	Concrete Reinforcement and Steel Institute
EIA	Electronic Industries Association
ETL	Electrical Test Laboratories
IBC	International Building Code, International Conference of Building Officials
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IFI	Industrial Fasteners Institute
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
ISO	Insurance Services Office
MBMA	Metal Building Manufacturer's Association
MnDOT	Minnesota Department of Transportation
MPTA	Mechanical Power Transmission of Association
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NGLI	National Lubricating Grease Institute
OSHA	Occupational Safety and Health Act of 1970
PCA	Portland Cement Association
SAE	Society of Automotive Engineers
SAMA	Scientific Apparatus Makers Association
SMA	Screen Manufacturer's Association
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Construction
UL	Underwriters' Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WCRSI	Western Concrete Reinforcing Steel Institute
WRI	Wire Reinforcement Institute, Inc.
WWPA	Western Wood Products Association

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

****** END OF SECTION ******

SECTION 01 45 00 - TESTS AND INSPECTIONS

PART 1 -- GENERAL

1.1 SCOPE OF TESTS

A. All materials, equipment, installation, and workmanship included in this contract, if so required by the ENGINEER, shall be tested and inspected to prove compliance with the contract requirements.

B. No tests specified herein shall be applied until the item to be tested has been inspected and approval given for the application of such test.

C. Tests and inspections shall include:

1. The delivery acceptance tests and inspections.
2. The installed tests and inspections of items as installed.
3. Performance guarantee tests.
4. Final testing and start-up.

D. Tests and inspections, unless otherwise specified or accepted, shall be in accordance with the recognized standards of the industry.

E. The CONTRACTOR shall pay for tests and inspections normally conducted by manufacturers and material suppliers and for any other tests and inspections, which may be so specified herein. The OWNER shall pay the cost of testing and inspection not normally conducted by manufacturers or material suppliers or not specified herein.

F. CONTRACTOR shall conduct field tests on his work as required to comply with applicable codes, to determine acceptability of workmanship, and as specified including but not limited to the following:

1. Hydrostatic tests of piping, equipment, and water retaining structures.
2. Tests of welded joints as specified.
3. Leakage tests on steel tanks assembled by CONTRACTOR and hydraulic structures.
4. Calibration tests.
5. Simulation tests on control systems.
6. Preliminary tests and checks associated with placing equipment and systems into service.
7. Thickness and holiday tests on painting.
8. Other tests as defined in the specifications.

1.2 EVIDENCE OF TEST

A. The form of evidence of satisfactory fulfillment of delivery acceptance test and of installed test and inspection requirements shall be, at the discretion of the ENGINEER, either by tests and inspections carried out in his presence or by certificates or reports of tests and inspections carried out by approved persons or organizations.

1.3 DELIVERY ACCEPTANCE TESTS

A. The delivery acceptance tests and inspections shall be at the CONTRACTOR's expense for any materials or equipment specified herein and shall include the following:

1. Test of items during the process of manufacture and/or on completion of manufacture, comprising material tests, hydraulic pressure tests, electric tests, performance and operating tests, and inspections in accordance with the relevant standards of the industry and, more particularly, as detailed in individual clauses of these specifications or as may be required by the ENGINEER to satisfy himself that the items tested and inspected comply with the requirements of this contract.

2. Inspection of all items delivered at the site in order that the ENGINEER may be satisfied that such items are of the specified quality and workmanship and are in good order and condition at the time of delivery.

1.4 INSTALLED TESTS AND INSPECTIONS OF ITEMS AS INSTALLED

A. All mechanical and electrical equipment shall be tested by the CONTRACTOR to the satisfaction of the ENGINEER before any facility is put into operation. Tests shall be as specified herein and shall be made to determine whether the equipment has been properly assembled, aligned, adjusted, and connected. Any changes, adjustments, or replacements required to make the equipment operate as specified shall be carried out by the CONTRACTOR as part of the work.

1.5 PERFORMANCE GUARANTEE TEST

A. Where performance guarantee tests are required, the CONTRACTOR shall conduct the test as specified in the presence of the ENGINEER.

1.6 FINAL TESTING AND START-UP

A. At least 60 days before the time allowed in his construction schedule for commencing testing and start-up procedures, the CONTRACTOR shall submit to the ENGINEER, in duplicate, details of the procedures he proposed to adopt for testing and start-up of all mechanical and electrical equipment to be operated singly and together, excepting when such procedures have been covered in the specifications. Tests of pumps or other equipment requiring water for operation shall be conducted using clear water. The water required for such tests shall be provided by the CONTRACTOR.

B. During the testing of mechanical, instrumentation, and electrical equipment, the CONTRACTOR shall make available experienced factory-trained representatives of the manufacturers of all the various pieces of equipment, who shall instruct the OWNER's personnel in the operation and care thereof. Instruction shall include step-by-step troubleshooting procedures with all necessary test equipment.

C. After successful testing, the manufacturer's representatives shall provide the CONTRACTOR with an affidavit that the equipment installation is complete and has been carried out in full conformance with the manufacturer's recommendations. The CONTRACTOR shall forward to the ENGINEER copies of each affidavit received prior to final payment.

D. If, under test, any portion of the work fails to fulfill the contract requirements and is altered, renewed, or replaced, tests on that portion so altered, removed, replaced, together with all other portions of the work as are affected thereby, shall, if so required by the ENGINEER, be repeated within a reasonable time and in accordance with the specified conditions, and the CONTRACTOR shall pay to the OWNER all reasonable expenses incurred by the OWNER as a result of the carrying out of such tests.

E. Before final acceptance of the work, the CONTRACTOR shall return any units, which have been put in temporary storage to an operating condition. He shall demonstrate that all components of the mechanical systems are properly functioning and in a fully operational condition. All pumps, motors, and related equipment shall be operated during the trial period. A range of discharge head conditions shall be affected for pumping units by partially closing valves as directed by the ENGINEER. In the event malfunctions are discovered, the CONTRACTOR shall correct them. If necessary, manufacturer's representatives shall be recalled to make corrections or adjustments.

F. Final testing and start-up shall be combined with the instruction of operating personnel to the end that when final testing is completed, the stations can be turned over to the OWNER in an operating condition, and the district personnel will be prepared to continue the operation in an orderly manner. Instruction of operating personnel by manufacturer's representatives shall be performed during this period.

1.7 REPEAT TESTS

A. Where, in the case of an otherwise satisfactorily installed test, any doubt, dispute, or difference should arise between the ENGINEER and the CONTRACTOR regarding the test results or the methods or equipment used in the carrying out by the CONTRACTOR of such test, then the ENGINEER may order the test to be repeated. If the repeat test, using such modified methods or equipment as the ENGINEER may require, substantially confirms the previous test, then all costs in connection with the repeat test will be paid by the OWNER; otherwise, the costs shall be borne by the CONTRACTOR. Where the results of any installed test fail to comply with the contract requirements for such test, then such repeat tests as may be necessary to achieve the contract requirements shall be made by the CONTRACTOR at his own expense.

1.8 TESTING AND LABORATORY SERVICES

A. **Independent Testing Laboratory:** Where tests or inspections by an independent testing laboratory are required by this specification, the CONTRACTOR shall employ and arrange for, at his expense, the services of an approved independent testing laboratory satisfactory to the ENGINEER to perform the testing utilizing recognized standard procedures and criteria.

B. **Reports and Certificates:** The CONTRACTOR shall submit reports and certificates of all inspections and tests to the ENGINEER in duplicate. The reports and certificates become the property of the OWNER.

C. **Sample Materials:** The CONTRACTOR shall furnish all sample materials required for these tests and shall deliver same without charge to the testing laboratory or other designated agency when and where directed by them.

D. **Additional Tests:** Any additional tests required beyond those required under this specification may be ordered by the ENGINEER to settle disagreements with the CONTRACTOR regarding the quality of work done. If the work is defective, the CONTRACTOR shall pay all costs of the extra tests and shall correct the work. If the work is satisfactory, the OWNER will pay for extra tests.

1.9 ENGINEER'S REPRESENTATIVE AND INDEPENDENT LABORATORY TESTING

A. The ENGINEER will provide a full-time Resident Project Representative (RPR) to ascertain that the work is generally accomplished properly and in accordance with the plans and specifications. Whether in the field or in the CONTRACTOR's shop or shops of his subcontractors, the RPR shall have full access to the work and shall be given full cooperation. The RPR shall have the authority, subject to the final decision of the ENGINEER, to reject any defective work or material or to suspend the work if

not being properly performed. The RPR shall have no authority to permit any deviation from the plans and specifications except on written order from the ENGINEER.

B. The OWNER will retain and compensate a qualified testing laboratory to provide testing of concrete, earthwork, roadway surfacing, and similar items of work. Field tests and job samples shall be made by the CONTRACTOR at the option of the ENGINEER to ensure proper control of materials and installation of materials under this Contract.

1.10 LEAKAGE TESTING AND DISINFECTION

A. General

1. Except as otherwise provided herein, the CONTRACTOR shall furnish all equipment, labor, and materials required for testing hydraulic structures and pipelines as specified. Water for testing and disinfecting will be furnished by the OWNER; however, the CONTRACTOR shall make all necessary provisions for conveying the water from the OWNER-designated source to the points of use.

2. All hydraulic structures and pressure pipelines shall be tested; however, disinfection shall be limited to pipelines, tanks, and structures designed for potable water service. Disinfection shall be accomplished by chlorination. Chlorine dosages will be computed by the ENGINEER, who will furnish the CONTRACTOR with instructions for the proper application of chlorine. All chlorinating and testing operations shall be done in the presence of the ENGINEER.

3. Disinfection operations shall be scheduled by the CONTRACTOR as late as possible during the Contract time period so as to ensure a maximum degree of sterility of the facilities at the time work is accepted by the OWNER. Bacteriological testing shall be performed by a certified testing laboratory acceptable to the OWNER. The results of the testing shall be satisfactory to the Department of Health.

4. Release of water from structures and pipelines, after testing and disinfecting has been completed, shall be as directed by the ENGINEER.

5. Prior to both testing and disinfecting, all hydraulic structures shall be cleaned by thoroughly hosing down all surfaces with a high-pressure hose and nozzle of sufficient size to deliver a minimum flow of 50 gpm; all pipelines shall be thoroughly flushed or blown out, as appropriate.

B. Testing of Hydraulic Structures

1. Testing shall be performed prior to backfilling, except where otherwise permitted by the ENGINEER. Testing shall not be performed sooner than 14 days after all portions of structure walls have been completed. The test shall consist of filling the structure with water to the maximum operating water surface. The rate of filling shall not exceed 24 inches of depth per day. After testing has been completed, water shall be disposed of as directed by the ENGINEER.

2. If the structure does not require backfilling around it, then the structure could be filled with water at a rate chosen by the CONTRACTOR provided the concrete has reached its design strength.

3. After the structure has been filled as specified, the leakage test shall be performed as follows: An initial water level reading shall be made. Seven days following the initial reading, a second reading shall be made. The structure shall be considered to have passed the test if water loss during the 7-day period, as computed from the 2 water level readings, does not exceed 1/20 of 1 percent of the total volume (0.0005 x Tank Volume) after allowance is made for evaporation loss. Visible leaks or seepage shall be fixed regardless of the leakage test results. Should the structure fail to pass the test, the test shall be repeated for up to 3 additional 7-day test periods. If at the end of 28 days the structure still fails to pass the leakage test, the CONTRACTOR shall

empty the structure as directed by the ENGINEER and shall examine the interior for evidence of any cracking or other conditions that might be responsible for the leakage. Any cracks shall be "vee' d" and sealed with sealant. Regardless of the leakage test results, any evidence of leakage or seepage through the cracks and joints shall be repaired to the satisfaction of the ENGINEER. Seepage through the cracks may be sealed using Zypex or Kryton products. Following these operations, the CONTRACTOR shall again test the hydraulic structure. In the case of a clearwell or reservoir, the retesting shall again be combined with disinfection, exclusive of the spraying operation.

C. Disinfection of Hydraulic Structures and Appurtenant Pipelines

1. All hydraulic structures, which store or convey potable water, shall be disinfected by chlorination. Chlorination of hydraulic structures shall be performed in accordance with the requirements of AWWA C652 using Method 1, 2, or 3 or a combination of methods, except that filter basins shall be disinfected in accordance with AWWA C653.

D. Hydrostatic Testing of Pipelines

1. Process piping may be field-tested for leakage at 100 psi in accordance with the appropriate section (hydrostatic tests) of AWWA C600-2017. Test pressure and duration shall be per AWWA C600-2017, and allowable leakage shall be determined in accordance with the formula:

$$L = \frac{S*D*\sqrt{P}}{148{,}000}$$

where factors and units are defined as follows: L=Leakage, S=Length (ft.), D = Nominal Diameter (in.), and P = Average Test Pressure (PSI).

CONTRACTOR shall conduct tests under the supervision of the ENGINEER.

Line	Test Pressure*
Forcemains and Watermains	150 psi
Two-Inch Water Service	150 psi
Gravity Full Flow Process Piping	50 psi

* Test pressure based on the elevation of the lowest point in the line under test and corrected to the elevation of the test gauge.

E. Testing Gravity Pipelines and Sewer Mains

1. Hydrostatic Test Procedure

(a) The test section shall be bulkheaded and the pipe subjected to a hydrostatic pressure produced by a head of water at a depth of three (3) feet above the top of the pipe or sewer at the upper structure or manhole under test. In areas where the groundwater exists, this head shall be 3 feet above the existing water table.

(b) This head of water shall be maintained for a period of one (1) hour for the pipe body to absorb water completely and thereafter for a further period of one (1) hour for the leakage test. During this one-hour test period, the measured maximum allowable rate of exfiltration shall not exceed 100 gallons per inch diameter per mile of pipe per 24 hours.

Sewer Diameter (inches)	Max. Allowable Loss (Gal/hr 100 ft.)
6	0.5
8	0.6
10	0.8
12	1.0
15	1.2
18	1.4
21	1.7
24 & larger	1.9

2. Air Test Procedure

   (a) If the CONTRACTOR elects to air test, he shall perform these tests with equipment similar to Air-Loc equipment manufactured by Cherne Industrial Inc., Hopkins, Minnesota.

   (b) The air test shall be made on a clean pipe. The line shall be plugged at each end with pneumatic balls. Low-pressure air shall be introduced into the line to pressurize the line 4 psi above the average back pressure on the pipe due to submergence in groundwater. Allow at least two (2) minutes for the air temperature to stabilize and then start timing and the pressure readings.

   (c) The portion of the line being tested shall not lose air at a rate to cause the pressure to drop from 3.6 psi to 3.0 psi in less time than listed below:

Pipe Diameter (in.)	Minimum Allowable Time (minutes)
4	2.0
6	3.0
8	4.0
10	5.0
12	6.0
14	7.0
15	7.0
18	8.5
20/21	10.0

F. Disinfecting Pipelines

1. All potable water pipelines, except those appurtenant to hydraulic structures, shall be disinfected in accordance with the requirements of AWWA C651 using either of the continuous-feed methods as modified herein.

2. **Chlorination:** A chlorine-water mixture shall be uniformly introduced into the pipeline by means of solution feeding equipment. The chlorine solution shall be introduced at one end of the pipeline through a tap such that an initial concentration of 50 mg/L shall be obtained in the watermain being tested. The dosage of calcium hypochlorite powder containing 70% available chlorine shall be one pound for every 1,680 gallons of water of pipe capacity.

3. **Retention Period:** Chlorinated water shall be retained in the pipeline for at least 24 hours. After the chlorine-treated water has been retained for 24 hours, the free chlorine residual at the pipeline extremities and at other representative points shall be at least 10 mg/L.

4. **Final Flushing:** After the applicable retention period, the heavily chlorinated water shall be flushed from the pipeline until chlorine measurements show that the concentration in the water leaving the pipeline is no higher than that generally prevailing in the system or is acceptable for domestic use. If there is any question that chlorinated discharge will cause damage to the environment, a reducing agent shall be applied to the water to neutralize thoroughly the chlorine residual remaining in the water.
5. **Bacteriological Testing:** After final flushing and before the pipeline is placed in service, a sample (or samples) shall be collected from the end of the pipeline and shall be tested for bacteriological quality in accordance with the requirements of the Department of Health. For this purpose, the pipe shall be re-filled with fresh potable water and left for a period of 24 hours before any sample is collected. Should the initial disinfection treatment fail to produce satisfactory bacteriological test results, the disinfection procedure shall be repeated until acceptable results are obtained.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 50 00 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 -- GENERAL

1.1 WORK INCLUDED

A. Potable Water

B. Sanitary Facilities

C. Water Control

D. Cleaning During Construction

E. Removal

1.2 POTABLE WATER

A. The CONTRACTOR may purchase potable water from the OWNER. However, the CONTRACTOR shall provide the facilities necessary to convey water (meter, backflow preventer, pipe, etc.) from the OWNER-designated source to the points of use. The location of the water source shall be as shown in the drawings or as dictated by the OWNER. This potable water may be used for construction uses such as hydrostatic tests. The CONTRACTOR shall notify the OWNER before utilizing the potable water for construction uses and shall cooperate with the OWNER in scheduling any large water demands so as to minimize the disruptions to the OWNER's water distribution system.

1.3 SANITARY FACILITIES

A. The CONTRACTOR shall make arrangements for use of adequate toilet facilities at or near the site of work. Such facilities shall be subject to the acceptance of the ENGINEER as to location and type. The CONTRACTOR shall maintain the same in sanitary condition from the beginning of the work until completion and shall then remove the facilities and disinfect the premises. All portions of the work shall be maintained at all times in a neat, clean, and sanitary condition.

1.4 WATER CONTROL

A. The site shall be graded to drain. Excavations shall be maintained free of water.

1.5 CLEANING DURING CONSTRUCTION

A. Waste material and other accumulated rubbish shall be disposed of daily.

1.6 REMOVAL

A. Remove temporary materials, equipment, services, and construction prior to substantial completion inspection.

B. Clean and repair damage caused by installation or use of temporary facilities. Grade site and restore existing facilities used during construction to specified or original condition.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 51 39 – BYPASS PUMPING SANITARY SEWER

PART 1 -- GENERAL

1.1 SECTION INCLUDES

A. BYPASS PUMPING to allow repair and rehabilitation of lift station, force main, and related sanitary sewer systems. Necessary equipment, temporary installations, controls, and operating personnel to accomplish the diversion of wastewater around construction areas for the time necessary to accomplish the work.

1.2 DEFINITIONS

A. Spill: Release of any amount of wastewater to any location outside the existing sanitary sewer system or bypass pumping system, including, but not limited to, bodies of water, ground surface, excavations, homes, businesses, basements, or storm sewers.

1.3 CONTRACTOR'S RESPONSIBILITY

A. Design, construct, install, operate, monitor, maintain, dismantle, and remove the bypass pumping system(s) in accordance with these requirements. Maintain continuous ability to automatically convey the flow of wastewater at all times. Do not spill wastewater. Wastewater flow in the existing system shall not be restricted in any way.

B. The Contractor shall be responsible for damages to public or private property caused by wastewater backup or spills due to the Contractor's operations and pay for the repair of all damages and all fines related to spills of wastewater.

C. Noise mitigation devices and procedures to comply with local noise ordinances shall be provided. Provide noise mitigation to a maximum dBA of 75 measured within 10 feet of any operating equipment.

D. Obtain all necessary permits from the city, county, state, or authority having jurisdiction.

E. Provide a trained point of contact who has received the proper training for the operation of the bypass pumping system and have a list of phone numbers to call in the event of a spill or emergency.

1.4 DESIGN CRITERIA

A. Pumps: for pumped flow diversion, provide redundant equipment (pumps, drive units, power sources). Redundant equipment shall be installed and ready for automatic operation should any element of the system fail. The redundant power source shall automatically activate in the event of power loss from the primary source and shall automatically operate until normal power returns. The redundant pump and drive unit shall have a capacity equal to or greater than the largest pump capacity.

B. System Control: The system shall automatically start with rising levels and shut down with falling levels. The system shall automatically cycle between pumps and start additional pumps on rising levels.

C. The pipes shall be rated for the test pressure, and the assembled system shall be capable of withstanding the thrust forces generated by the flow and internal pressures indicated.

D. Suitable valves shall be provided at the upstream end of each pipeline for isolation purposes in the event of a rupture, leak, or some other problem. Under normal conditions, these valves shall remain open.

E. Contractor shall provide protection as necessary to prevent freezing and maintain operation.

F. The contractor shall provide a plan for providing 300 gpm pumping capacity at all times, with the capability to mobilize additional pumping capacity up to 500 gpm within a 2-hour time requirement.

G. Discharge head-on force main at the valve vault is 96 feet at 300 gpm.

1.5 SUBMITTALS

A. No less than two weeks prior to the expected date of the start of bypass pumping, submit the following items:

1. Detailed Bypass Pumping Plan for each flow diversion set-up.
2. Emergency Spill Response Plan.

B. The Emergency Spill Response Plan shall include as a minimum requirement:

1. A list of spare equipment that will be available on-site.
2. A list of actions that will occur in the case of a spill, including notifications, work by the emergency response team, cleanup activities, corrective actions, and preparation of a report.
3. Telephone list and order of contact.

C. The detailed Bypass Pumping Plan shall contain the following information as a minimum requirement:

1. The system layout, including means, methods, and materials for bulkheading existing gravity pipe(s), connection to the existing forcemain, material, and size of proposed bypass piping, and provisions for thermal expansion/contraction.
2. Pumping equipment design calculations, pump(s), and system curve(s) with multiple pump operations superimposed on the system curve.
3. Monitoring devices to detect flow levels and alarm abnormal levels, and demonstrate proper operation of the bypass pumping system. Address device maintenance, monitoring frequency and activity, and the responses to abnormal levels.
4. Secondary Bypass System/Route or conveyance means to establish an emergency reinstatement of the gravity trunk sewer if the primary bypass system fails.
5. Discharge conditions and details of the end assembly.
6. Noise mitigation procedures and devices, where required.
7. Schedule for flow transfers and reinstatement of existing facilities.
8. Telephone Notification List and Phone Numbers.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.1 GENERAL

A. Bypass pumps may be staged out of the manhole upstream of the lift station, with discharge routed to either the valve vault or the air-release manhole. Locations are shown in the plan set. The

contractor shall be responsible for developing and implementing the bypass pumps and piping and shall be responsible for restoring all facilities upon completion.

B. Maintain an inventory of spare equipment that is available on-site, including two sets of repair clamps or couplings for each pipe size and type.

C. Minimize the length of time the bypass pumping system is utilized. Do not begin Bypass Pumping without the Engineer's approval. Do not begin Bypass Pumping until all equipment and materials necessary for the completion of rehabilitation are on site.

D. Prior to conveying wastewater, the Contractor shall successfully hydro test the piping with water. Hydro test at a pressure equal to 1.5 times the highest operating pressure and hold for one hour. No leakage is allowed, and the pressure drop must be less than 5 percent of the test pressure over the test period. This hydro test shall be repeated each time the piping system is disassembled and later reassembled.

E. Contractor shall have a designated point of contact available at all times during Bypass Pumping (24 hours per day, 7 days per week). The point of contact will continually monitor equipment and piping and will have a functioning cell phone.

F. Notify the Engineer in writing 10 working days in advance of bypass pumping system start up or shut down. Notify the Engineer verbally 48 hours in advance of bypass pumping system start-up or shutdown. Adjust the schedule of system start-up or shutdown as required so the notice is received during normal business hours. Do not begin Bypass Pumping without the Engineer's approval. Do not terminate Bypass Pumping without the Engineer's approval.

G. At all times when any Contractor equipment, bulkheads, or other devices are in the Owner's sewer, the Contractor shall provide a monitoring system with the means to detect or determine that wastewater is not increasing abnormally and wastewater is flowing properly through the sewer and/or the bypass pumping system. The monitoring system shall immediately alert the Contractor of any abnormality. The Contractor shall respond to the site within 60 minutes of the alert. Any device(s) that the Contractor uses shall be tested or checked daily, and a log of such shall be maintained. The Contractor shall maintain the system of monitoring and shall have access to spare parts as necessary to keep it functioning properly. Maintenance on the system shall be recorded in the log.

H. Fencing, security, and measures necessary to protect the general public from open manholes or vaults during bypass pumping operations, as shown on the plans and as directed by the Engineer, shall be incidental to Bypass pumping.

I. In case of an Emergency spill or spill response:

   1. If an Emergency spill occurs for any reason, Contractor shall immediately initiate the Emergency Spill Response Plan as previously submitted and immediately contact the Owner.

   2. The attendant shall contact the Engineer and other individuals on the phone list. The attendant will also contact any affected property owner and/or resident. If the incident is due to vandalism, the attendant shall also notify the local police and obtain a police report.

   3. Contractor shall have their emergency repair team clean up respondents to the bypass site within one hour to assess the situation and initiate the appropriate action. The first response will be to stop the wastewater spill immediately if the attendant has not done so. Responders shall obtain additional equipment and personnel if the situation warrants it.

4. The Contractor shall implement the appropriate corrective action. This corrective action may involve, but not necessarily be limited to, pumping wastewater into tanker trucks and hauling it to a downstream location until such time as repairs are done.

5. When a spill may result in standing wastewater, the Contractor shall utilize appropriate equipment to pump and collect the wastewater and dispose of it either by a tanker truck or via the repaired system. This action shall take place within 12 hours of the incident or a shorter time period if required by local or state authorities. Clean-up shall be to the satisfaction of the ENGINEER and local or state authorities.

6. If in an appropriate area to do so, lime or gypsum shall be applied to bypassed wastewater areas.

7. The CONTRACTOR shall issue a report to the OWNER on the date and time of the incident, the estimated spill quantity, the cause of the incident, and the action taken, including both the corrective action and the cleanup activities. Attach any police reports, if applicable.

J. Bypass pumping piping shall be constructed of High Density Polyethylene (HDPE), PVC, or other hard piping as approved by the Engineer. The bypass piping shall be:

1. Homogeneous throughout, free of visible cracks, discoloration, pitting, varying wall thickness, foreign material, blisters, or other deleterious faults.

2. Defective areas of pipe: cut out and replaced.

3. Assembled and joined on site using couplings, flanges, or butt-fusion method to provide leakproof joint in accordance with manufacturer's instructions and ASTM D 2657.

4. Threaded or solvent joints and connections are not permitted.

5. Butt-fused joint: True alignment and uniform roll-backed beads resulting from the use of proper temperature and pressure.

(a) Allow adequate cooling time before removal of pressure.

(b) Watertight and have tensile strength equal to that of the pipe.

K. Use of Flexible Hoses and associated couplings and connectors may be used with permission from the Owner. At the minimum, such materials shall be:

1. Abrasion resistant.

2. Suitable for intended service.

3. Rated for external and internal loads anticipated, including test pressure.

3.2 NOISE GENERATION

A. Confirm noise levels comply with local noise ordinances and this specification.

B. The full scale test shall be deemed to have failed if at any time during the test any piece of equipment does not function as designed or all wastewater flows are not accommodated for whatever reason and for whatever length of time.

C. If the full-scale test fails, CONTRACTOR shall determine and correct the deficiencies that caused the test to fail and conduct another full-scale test. Full-scale tests shall be performed until all wastewater flow is accommodated for the entire time of the test.

D. The work requiring the BYPASS PUMPING flows shall not begin until a successful full-scale test has been completed.

3.3 SYSTEM SHUTDOWN AND REMOVAL

A. Upon completion of the rehabilitation and flow transfer into the rehabilitated facilities, the bypass pumping system shall be flushed, cleaned, drained, and removed. All affected surface improvements shall be restored to a condition equal to or better than the condition existing prior to construction.

B. Repair the liner system of the manhole if it is damaged during the installation or operation of the bypass pumping system.

C. Perform surface restoration in accordance with the applicable specifications, but in any event, return surface to conditions found prior to bypass pumping activities.

****END OF SECTION****

SECTION 01 57 00 - TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 -- GENERAL

1.1 EXPLOSIVES AND BLASTING

A. The use of explosives will not be permitted.

1.2 DUST ABATEMENT

A. The CONTRACTOR shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent his operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in, or occupying buildings in, the vicinity. The CONTRACTOR shall be responsible for any damage resulting from any dust originating from his operations. The dust abatement measures shall be continued until the CONTRACTOR is relieved of further responsibility by the ENGINEER. No separate payment will be allowed for dust abatement measures and all costs thereof shall be included in the CONTRACTOR's bid price.

1.3 RUBBISH CONTROL

A. During the progress of the work, the CONTRACTOR shall keep the site of the work and other areas used by the CONTRACTOR in a neat and clean condition, and free from any accumulation of rubbish. The CONTRACTOR shall dispose of all rubbish and waste materials of any nature occurring at the worksite, and shall establish regular intervals of collection and disposal of such materials and waste. He shall also keep his haul roads free from dirt, rubbish, and unnecessary obstructions resulting from his operations. Equipment and material storage shall be confined to areas approved by the ENGINEER. Disposal of all rubbish and surplus materials shall be done off-site of construction, at the CONTRACTOR's expense, all in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Subpart H, Section 1926.252 of the OSHA Safety and Health Standards for Construction.

1.4 CHEMICALS

A. All chemicals used during project construction or furnished for project operation, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, a reactant, or of another classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

1.5 EROSION CONTROL

A. The CONTRACTOR shall comply with the MPCA's "General Storm Water Permit".

B. The CONTRACTOR shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent his operation from producing any soil erosion in amounts damaging to property or adjacent lands. The CONTRACTOR shall be responsible for any damage resulting from any soil erosion originating from his operations. Erosion abatement measures shall be continued until the CONTRACTOR is relieved of further responsibility by the ENGINEER. No separate payment will be allowed for erosion abatement measures and all costs thereof shall be included in the CONTRACTOR's bid price.

C. Suggested erosion abatement measures are as follows:

1. Proper site grading and prompt turf re-establishment.
2. The use of bales on all excavated or non-re-established turf slopes.
3. Completion of all county ditch crossings during the workday.
4. Pave all disturbed streets as quickly as practical.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

A. Minimize stripping vegetation or turf cover, and exposing the soils.

B. Provide and maintain storm sewer inlet protection at the project site and downgradient from the project.

C. Any excavations shall not be left open at night and shall require a chain-link fence around the pit or heavy steel plates over the pit.

D. Protect stockpiles from erosion.

E. Repair disturbed streets as quickly as possible.

**** END OF SECTION ****

SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. This section covers the furnishing of all labor, materials, tools, equipment, and performances of all work and services necessary or incidental to stormwater management as indicated on the plans, as specified herein or as directed by the Engineer.

B. The Contractor and Owner shall identify a person(s) knowledgeable and experienced in the application of erosion and sediment control BMPs who will oversee the site erosion and sediment control.

C. Minnesota Pollution Control Agency (MPCA) - General Storm Water Permit for Construction Activity (MN R100001)

1. This site as designed will disturb less than 1.0 acres, therefore an NPDES permit is not required.

2. The Contractor shall contact the Owner if it is determined that additional work is required which will increase the total disturbance area to 1.0 acres or more.

(a) The Contractor applies for an NPDES permit from the MPCA.

(b) A copy of the active permit has been posted on the site.

(c) The Contractor shall be responsible for all costs associated with increasing the total disturbance area to 1.0 acres or more except where the change is due to a work change that is directed by the Owner and not a result of recommendations made by the Contractor to accommodate changed work means or methods.

(d) The Contractor shall phase construction to minimize erosion and sediment potential during the project.

1.2 METHOD OF MEASUREMENT AND PAYMENT

A. Payment for all labor, equipment, materials, and supplies necessary to complete the work specified in this section will be included in the Lump Sum bid for the project or appropriate bidding section.

B. The Contractor shall not perform work that the Contractor considers Extra Work without the written approval of the Engineer.

C. No additional payment will be made for Erosion Control BMPs necessary to accommodate Contractor phasing or work methods including increased quantities, alternative methods, and turf restoration impacts.

1.3 SPECIFICATION REFERENCES

A. The following referenced Specifications will apply to this Section:

1. MnDOT 2573.

2. MnDOT 2574.

3. MnDOT 2575.

4. MnDOT 1717.

B. Unless noted otherwise, the provisions in this section are in addition to the referenced specification.

1.4 SUBMITTALS

A. No submittals for this section.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Bale checks will not be used.

B. Where type and rate of seed, fertilizer, and mulch are not designated on the plans or elsewhere in the specifications, the MnDOT Seed Mix and Turf Establishment recommendations for the district where the project is located will apply except that the seeding rate will be 1.5 times the MnDOT indicated rate.

PART 3 - EXECUTION

3.1 GENERAL

A. Construction and/or installation of all appropriate erosion & sediment control devices shall be completed prior to any soil disturbing activities.

B. Prior to construction, the Contractor shall observe and document the existing stormwater outfall system and discharge area. Sediment deposits not documented prior to the construction may be assumed to have originated from the project site and will be required to be removed and disposed of by the Contractor.

C. Exit areas and connected roads shall be kept clean of tracking and sediment release from the site. All material will be cleaned up the sooner of within 24 hours of discovery or the end of each business day. Washing or sweeping of material into the storm sewer system will not be allowed.

3.2 CONSTRUCTION REQUIREMENTS

A. The Contractor shall control drainage, erosion, and sediment on the project including haul roads, temporary construction, waste disposal sites, plant and storage locations, and borrow pits, other than commercially operated sources.

B. If the Contractor fails to install, maintain, and/or perform the appropriate erosion and sediment control practices, as determined by the Engineer, the Engineer may issue a written notice to the Contractor. The Contractor shall correct the cause and alleviate all sediment deposition to the fullest extent possible within the timeframe in the written notice.

C. The Contractor shall be responsible for removing all sediment deposits including, but not limited to, drainage ways, stormwater basins, or catch basins and re-stabilize the areas where sediment removal results in exposed soil. The removal and stabilization shall take place within 7 calendar days of discovery unless precluded by legal, regulatory, or physical access restraints, regardless if a written notice has been issued by the Engineer. If precluded, removal and stabilization must take place within 7 calendar days of obtaining access. The Contractor is responsible for contacting all local, regional, state, and Federal authorities and property owners and obtaining applicable rights of entry, approvals, and/or permits.

D. **A contract deduction will be made equal to the total of all costs incurred by the Owner due to the failure of the Contractor to take corrective action within the required timeframe(s). Such costs include but are not limited to labor, materials, equipment, and administrative costs.**

******END OF SECTION******

SECTION 01 60 00 - MATERIALS, EQUIPMENT, LABOR, AND WORKMANSHIP

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. Products

B. Transportation and Handling

C. Storage and Protection

1.2 PRODUCTS

A. In case of conflict between codes, reference standards, drawings, and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the ENGINEER for clarification and directions prior to ordering or providing any materials or labor. The CONTRACTOR shall bid the most stringent requirements.

B. The naming of a manufacturer in this specification is not an indication that the manufacturer's standard equipment is acceptable in lieu of the specified component features. Naming is only an indication that the manufacturer may have the capability of engineering and supplying a system as specified. All exceptions to the specifications shall be indicated in the shop drawing.

C. Unless otherwise specified, all equipment and materials shall be new and of first-line quality. All workmanship shall be of first-line quality and free from defects.

D. All equipment and materials incorporated in the work shall be designed to meet the applicable safety standards of federal, state, and local laws, rules and regulations. All equipment requiring electrical power shall have an Underwriter Laboratories "UL" label. Equipment sent to the project site without the "UL" label will be rejected.

E. The CONTRACTOR shall, if required, furnish satisfactory evidence as to the source, kind, and quality of equipment and materials.

F. CONTRACTOR shall furnish, or require his subcontractors to furnish, proper tools and equipment and the services of all mechanics, laborers, and other employees necessary in the construction, testing, and execution of the work and the placing of all equipment in service.

G. All equipment and materials shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processor, except as otherwise provided in the Contract Documents.

1.3 TRADE NAMES AND ALTERNATIVES

A. For convenience in designation in the Contract Documents, materials to be incorporated in the WORK may be designated under a tradename or the name of a manufacturer and its catalog information. The use of alternative material which is equal in quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

1. The burden of proof as to the quality and suitability of such alternative equipment products, or other materials shall be upon the CONTRACTOR.

2. The ENGINEER will be the sole judge as to the comparative quality and suitability of such alternative equipment, products, or other materials and its decision shall be final.

B. Wherever in the Contract Documents the name or the name and address of a manufacturer or distributor is given for a product or other material, or if any other source of a product or material is indicated, such information is given for the convenience of the CONTRACTOR only, and no limit, restriction, or direction is indicated or intended thereby, nor is the accuracy or reliability of such information guaranteed. It shall be the responsibility of the CONTRACTOR to determine the accuracy of the information and to identify and locate any such manufacturer, distributor, or other sources of any product or material called for in the Contract Documents.

1.4 TRANSPORTATION AND HANDLING

A. All equipment shall be adequately and effectively protected against damage from moisture, dust, handling, or other cause during transport from the CONTRACTOR's premises to the site. Ponding of water shall not be permitted in the equipment storage area.

B. Prior to any equipment delivery, the CONTRACTOR shall attain the manufacturer's storage requirements for his equipment and forward one copy to the ENGINEER.

C. Each item or package shall be clearly marked with the appropriate number of this specification, and each separate portion of the plant shall receive, as far as practicable, a fitting or distinguishing mark which shall be shown on the packing lists. Each item of equipment shall have a firmly affixed label or tag with its equipment number or other discrete identifying marks.

D. The bearings of motors shall be relieved of load during transport by means of jacks or some other method to prevent "Brinelling."

E. Stiffeners shall be used where necessary to maintain shapes and to give rigidity. Parts or equipment may be delivered in assembled or sub-assembled units where possible.

1.5 STORAGE AND PROTECTION

A. Products shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures that maintain the temperature and humidity recommended by the manufacturer.

B. Store loose granular materials on solid surfaces in well-drained areas; prevent mixing with foreign matter.

C. Arrange storage to provide access for inspection.

D. Prior to and after installation, all equipment shall be protected against weather, dust, moisture, and mechanical damage. During concrete operations, including finishing, all equipment that may be affected by cement dust must be completely covered. During painting operations, all grease fittings and similar openings shall be covered to prevent the entry of paint. Electrical switchgear, unit substation, and motor load centers shall not be installed until after the concrete work in those areas has been completed and accepted and the ventilation systems installed.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01 77 00 - PROJECT CLOSEOUT

PART 1 -- GENERAL

1.1 CLEANUP

A. The CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish, and other debris resulting from the work, and at the completion of the work he shall remove all waste materials, rubbish, and debris from the premises as well as all tools, construction equipment, machinery, and surplus materials. He shall leave the site clean and ready for occupancy by the OWNER. Early acceptance of process equipment shall not waive clean-up prior to final acceptance.

B. The Contract shall provide cleaning of all surfaces, systems, and fixtures, including removal of labels, tags, grease, oil, dirt stains, etc.

C. This cleaning will include the removal of dust from walls and other vertical surfaces and ceilings, and washing of all glass and counter surfaces. It also will include cleaning and waxing or sealing all floors as specified for the individual floor material.

D. Upon acceptance of a building, the OWNER will assume the normal janitorial cleaning services. Re-cleaning of any soiled areas due to the CONTRACTOR's operation shall be the responsibility of the CONTRACTOR.

1.2 GUARANTEE

A. The CONTRACTOR shall guarantee all work and material against all defects for a period as specified in the General Conditions and or as modified by the Supplementary Conditions from the date of substantial completion. The CONTRACTOR shall repair or replace any such defective work and materials to conform to the provisions of the contract and without expense to the OWNER, within ten (10) days after notification in writing by the OWNER or ENGINEER of such defective work or material. The CONTRACTOR shall perform his work so as to cause the OWNER a minimum of inconvenience and interruption of services. If the CONTRACTOR has not done said repairs or replacements or made arrangements for the correction thereof within the period specified above, the OWNER may do so and charge the cost to the CONTRACTOR.

B. Guarantee on equipment placed into operation prior to substantial completion shall start from the date of substantial completion.

C. If the performance bond is posted, the performance bond will not be released until the guarantee period is over.

1.3 CORRECTION OF DEFECTIVE WORK DURING THE WARRANTY PERIOD

A. If during the warranty period, any work is found to be defective, the CONTRACTOR shall promptly, without cost to the OWNER and in accordance with the OWNER's written instructions, either correct such defective work, or if it has been rejected by the OWNER, remove it from the site and replace it with acceptable work.

B. Replacement of earth fill or backfill, where it has settled below the required finish elevations, shall be considered as a part of such required repair work, and any repair or resurfacing constructed by the CONTRACTOR which becomes necessary by reason of such settlement shall likewise be considered as part of such required repair work.

C. If the CONTRACTOR does not promptly comply with the terms of such instructions, the OWNER may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such correction or removal and replacement, including compensation for additional professional services, shall be paid by the CONTRACTOR.

D. The OWNER shall give notice of observed defects with reasonable promptness.

E. Under emergency conditions, the OWNER may remedy defective work without waiting for action by the CONTRACTOR. The OWNER will notify the CONTRACTOR immediately of the circumstances and actions taken, and the CONTRACTOR shall pay all reasonable substantiated costs of such actions.

1.4 FINAL INSPECTION

A. After the cleaning up of the work, premises, and all other areas and structures connected with the performance of the contract, the work as a whole shall be inspected by the ENGINEER and OWNER; and any workmanship or materials found not meeting the requirements of the specifications shall be removed by and at the expense of, the CONTRACTOR and good and satisfactory workmanship or material substituted, therefore. All settlement, defects, or damage to any part of the work shall be remedied and made good by the CONTRACTOR.

1.5 PROJECT ACCEPTANCE

A. The project shall be accepted after the final inspection has been conducted and all settlements, defects, damages, etc., discovered during the final inspection have been remedied.

1.6 FINAL SUBMITTALS

A. The CONTRACTOR, prior to requesting final payment, shall obtain and submit the following items to the ENGINEER for transmittal to the OWNER:

1. Written guarantee, where required.
2. Copies of all equipment testing and start-up reports for process equipment, motors, HVAC equipment, electrical, generators, etc.
3. Operating manuals and instructions.
4. Keying schedule.
5. Maintenance stock items, spare parts, and special tools.
6. Completed record drawings.
7. Bonds for roofing, maintenance, etc., as required.
8. Certificates of inspection and acceptance by local governing agencies having jurisdiction.
9. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provision of the law.

1.7 FINAL ESTIMATE AND PAYMENT

A. When the ENGINEER is of the opinion that the CONTRACTOR has completely performed all work required under the contract, he will submit to the CONTRACTOR a draft of the final estimate. The CONTRACTOR will be expected to submit his written approval of said final estimate within 5 calendar days after receipt, or in the event the CONTRACTOR disagrees with said final estimate, he shall within said 5 day period, file a written statement of all claims which he intends to present. If the

CONTRACTOR delays more than 5 calendar days in approving said final estimate or in presenting his own claims, the time for the final payment shall be extended by the period of such delay.

B. Upon receipt by the ENGINEER of the CONTRACTOR's written approval of said final estimate, the ENGINEER will certify physical completion of the work to the OWNER and will recommend acceptance of the work.

C. After acceptance of the work by the OWNER's governing body and 30 calendar days after the filing of the Notice of Completion, the OWNER will pay to the CONTRACTOR the amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the contract. In the event acceptance of the work is delayed more than 30 calendar days beyond the date of the last partial payment under the contract, the OWNER will make a further partial payment.

D. If the CONTRACTOR disagrees with the ENGINEER's final estimate and files a written statement of his claims in accordance with Subsection 01 77 00 1.7 A., the ENGINEER will issue as a semi-final estimate, the proposed estimate submitted to the CONTRACTOR, and the OWNER will make payment to the CONTRACTOR in accordance with the provisions of Subsection 01 77 00 1.7 C. The ENGINEER will then investigate the CONTRACTOR's claims, make any revisions to said semi-final estimate as he deems appropriate, and certify in writing to the OWNER the amount and value of the work performed by the CONTRACTOR. The OWNER will then make the final payment to the CONTRACTOR in accordance with the provisions of Subsection 01 77 00 1.7 C.

E. Final payment terminates liability of OWNER. The acceptance by the CONTRACTOR of the final payment shall be a release of the OWNER and its agents from all claims of any liability to the CONTRACTOR for anything done or furnished for, or relating to, the work or for any act or neglect of the OWNER or of any person relating to or affecting the work, except claims against the OWNER for the remainder, if any, of the amounts kept or retained. The CONTRACTOR shall certify that the provisions of Minnesota Statutes 290.92 have been complied with and that all claims against the CONTRACTOR by reason of the CONTRACT have been paid or satisfactorily secured.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 02 00 00 - GENERAL INFORMATION

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. The Contractor shall furnish all labor, materials, tools, and equipment and perform all work and services necessary or incidental for site work and yard improvements in accordance with the requirements of the Contract Documents.

B. The site work includes but is not limited to, the following major items of work:

1. Site Preparation
2. Excavation, Backfill, and Grading
3. Fencing
4. Demolition of Existing Structures
5. Landscaping
6. Roadwork and Paving
7. Sidewalks
8. Utility Installation
9. Manhole Structures

1.2 SUMMARY OF WORK

A. The General Conditions, Supplementary Conditions, and Special Conditions of these Contract Documents apply to Division 02.

1.3 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. The State of Minnesota, Department of Highways, “Standard Specifications for Construction,” 2020 Edition and Current Supplemental Specifications for Construction Division II & III, shall govern. The numbers shown in parenthesis in the following Special Provisions refer to the section of the governing specifications.

B. “Standard Utilities Specifications for Watermain and Sanitary Sewer and Storm Sewer Installation,” as prepared and published by the City Engineers Association of Minnesota, dated 2018, shall apply to construction in this contract except as modified or altered in these Special Provisions and are referred to as CEAM Specifications.

PART 2 -- PRODUCTS

2.1 SHOP DRAWINGS

A. All submittals of Shop Drawings and Equipment Data shall be as specified in Section 01 33 00 “Submittals”.

PART 3 -- EXECUTION

3.1 RIGHT-OF-WAY

A. The Contractor shall confine his area of operations to the space within the boundaries of the easements and property lines shown on the plans.

B. The Contractor shall be held responsible for unnecessary damage to all the existing facilities. Care shall be used to avoid injury to property.

C. It shall be the responsibility of the Contractor to comply with local road restrictions.

D. Work in agricultural areas shall be limited to the easement area to avoid any crop damages being claimed.

3.2 ESTABLISHING LINE AND GRADE

A. Survey control monuments, benchmarks, or other reference points shall be protected. If damaged or destroyed through the negligence of the Contractor, they shall be replaced at the Contractor's expense.

B. The Engineer shall provide qualified personnel and the necessary equipment to properly set horizontal and vertical control stakes for laying out the various structures and piping. The Engineer will provide a benchmark for vertical control and baselines in N-S and E-W directions with offsets to buildings and structures.

C. The property boundary corners, or survey control points, shall be set by the Engineer.

D. In the event of apparent or questionable errors or inconsistencies in such stakes or references set for the control of line and/or grade, the Contractor shall promptly notify the Engineer of such error or inconsistency and shall not proceed with the work until such stake, grade or mark has been verified or corrected by the Engineer.

3.3 INTERFERENCE OF UNDERGROUND STRUCTURES

A. The Contractor shall protect from damage all existing sanitary sewer and sanitary sewer manholes, storm sewer and storm sewer manholes, gas lines and regulators, watermains, watermain valve boxes, underground or overhead telephone wires or cables, underground or overhead electric wires or cables, and all other similar utilities, including service connections, curb, gutter, and sidewalk, except as required to be removed for the actual construction of the project. See Reference Specification CEAM 2621.3A2.

B. The existing utilities must remain in service throughout the construction period. The Contractor shall provide all labor, equipment, and appurtenances to perform this requirement properly. This work shall be considered incidental to the construction.

C. The utility information shown on the plans may not be completely accurate and is furnished from information supplied by the various utility companies and the OWNER as an indication of the presence of utility lines in the vicinity of construction. It is the sole responsibility of the Contractor to contact the utility companies to determine the extent and exact location of their facilities and to ascertain whether they are likely to be affected by the construction. The Contractor shall review with them the location of any and all of their utilities and improvements within the project limits and shall discuss his intended progress. In the event of accidental or necessary damage to any such facility, he shall immediately notify the utility company and shall cooperate fully in whatever is necessary to

repair such facility or restore service. Exploratory excavation shall be coordinated with the utility companies to ensure the exact locations.

D. The Contractor shall assume full responsibility for all damages to the property of such character, resulting from any act, omission, neglect, or misconduct in the execution or non-execution of the work, except that he will not be held responsible for damage to underground property within the right of way of its existence and the approximate location was not made known to the Contractor before the damage was done. To the extent of his liability and his own expense, the Contractor shall restore damaged property to a condition equal to that existing before the damage was done by repairing, rebuilding, or replacing it as directed, or he shall otherwise compensate for the damage in an acceptable manner.

E. Any services which are cut or otherwise damaged shall be repaired and/or rebuilt with the same materials or structurally heavier material than that which the service is constructed.

F. It is recommended that the Contractor conduct exploratory excavations ahead of the construction to locate utilities and reduce conflicts that may affect the progress of the project. These excavations are at the Contractor's expense unless the excavations are requested by the OWNER.

G. Existing sanitary sewer or storm sewer pipes that are not removed shall be abandoned. Plug all open ends with brick and mortar or concrete. This will be considered incidental work.

3.4 PROTECTION OF SURFACE IMPROVEMENTS

A. The Contractor shall provide protection during construction for buildings, structures, street crossings, and other facilities located within the construction and/or perpetual easement areas which are not noted to be removed in the plans.

B. The Contractor shall protect existing trees, shrubs, lawns, utilities, buildings, and other features or facilities, on or adjacent to the site from damage where such items are not designated to be removed. The Contractor shall replace damaged items at his own expense.

C. No direct compensation shall be paid to provide the necessary protection (such as sheeting, shaping, bracing, tunneling, etc.) for the facilities. This work shall be considered incidental to the project.

D. The Contractor shall exercise extreme care in constructing that segment of the relief sewer constructed on private property. Contact landowners prior to entering their property. Property damage shall be corrected by the Contractor at his expense.

3.5 REMOVAL OF SURFACE IMPROVEMENTS

A. The Contractor shall refer to CEAM Specification 2621.3A4.

B. Concrete surfaces shall be sawed prior to excavation of the trench unless a construction joint is convenient to the trench limits.

C. Bituminous street surface shall be sawed or cut, as stated in the referenced specification, prior to the excavation of the trench.

D. Trees to be cleared and grubbed are shown on the plans. In general, the work shall be done as described in MnDOT Specification 2101. Brush shall be cleared and grubbed; the cost for doing so shall be incidental to the construction of the project. Trees shall be determined by counting the number of trees cleared which measure more than four (4) inches in diameter at a point two (2) feet above the ground surface. Trees of smaller diameter shall be considered as brush.

3.6 SHEETING AND BRACING EXCAVATION

A. The Contractor shall refer to CEAM Specification 2621.3B4.

B. All excavations shall be sheeted, shored, and braced as will meet all requirements of the applicable safety codes and regulations; comply with any specific requirements of the Contract; and prevent disturbance or settlement of adjacent surfaces, foundations, structures, utilities, and other properties. Any damage to the work under contract or to adjacent structures or property caused by settlement, water or earth pressures, slides, cave-ins, or other causes due to failure or lack of sheeting, shoring, or bracing or through negligence or fault of the Contractor in any manner shall be repaired at the Contractor's expense and without delay.

C. Where conditions warrant extreme care, the Plans, Specifications, and Special Provisions may require special precautions to protect life or property, or the Engineer may order the installation of sheet piling of the interlocking type or direct that other safety measures be taken as deemed necessary. Failure of the Engineer to order correction of improper or inadequate sheeting, shoring, or bracing shall not relieve the Contractor's responsibilities for the protection of life, property, and work.

D. The Contractor shall assume full responsibility for proper and adequate placement of sheeting, shoring and bracing, wherever and to such depths that soil stability may dictate the need for support to prevent displacement. Bracing shall be arranged so as to provide ample working space and so as not to place stress or strain on the in-place structures to any extent that may cause damage.

E. Sheeting, shoring, and bracing materials shall be removed only when and in such a manner as it will ensure adequate protection of the in-place structures and prevent displacement of supported grounds. Sheeting and bracing shall be left in place only as required by the Plans, Specifications, and Special Provisions or ordered by the Engineer. Otherwise, sheeting and bracing may be removed as the backfilling reaches the level of respective support. Wherever sheeting and bracing are left in place, the upper portions shall be cut and removed to an elevation of three feet or more below the established surface grade as the Engineer may direct.

F. All costs of furnishing, placing, and removing sheeting, shoring, and bracing materials, including the value of materials left in place as required by the Contract, shall be incidental to the CONTRACT and will not be compensated for separately.

3.7 PREPARATION AND MAINTENANCE OF FOUNDATIONS

A. The Contractor shall perform any dewatering of the area excavated at his own expense.

B. Bedding required to stabilize the trench bottom shall be incidental to the construction of the project.

C. Coarse rock bedding or granular encasement of the PVC pipe is required and shall be considered incidental to the cost of the pipe in place. The bedding and encasement zone shall extend from 6 inches below the pipe barrel to 1 foot above the pipe barrel.

**** END OF SECTION ****

SECTION 02 30 00 - SUBSURFACE INVESTIGATION

PART 1 -- GENERAL

1.1 GENERAL

A. It shall be the responsibility of the Contractor to examine the site of the project and become familiar with all site conditions relating to the construction of the project.

B. The Contractor shall accept the site in the condition it is in.

1.2 SOIL INFORMATION

A. Soil borings have been made on the construction sites. Copies of the data obtained are found in Appendix B. The information contained in the above-referenced document is being made available to the Contractor solely for his information and convenience. The information and data contained in the referenced document do not constitute a part of the Contract.

B. Neither the OWNER nor the Engineer represents that the information being made available shows the complete range of conditions that will be encountered in the construction of the Project. The information furnished in the referenced document represents only the opinion of the OWNER and the Engineer as to the character of materials encountered during field investigations. All surface water and groundwater levels indicated in the soils report refer to levels at the time of the field investigation only.

C. The OWNER and the Engineer disclaim responsibility for any opinions, conclusions, interpretations, or deductions that may be expressed or implied in any of the information and data contained in the referenced document. It is expressly understood that the making of deductions, interpretations, and conclusions is the Contractor's sole responsibility.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 02 41 00 - DEMOLITION OF EXISTING WASTEWATER FACILITIES

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. CONTRACTOR shall accomplish demolition and related work as described below and as shown on the plans.

B. All the structures have been exposed to wastewater and may have biological growth. All work related to the disposal of such material shall be incidental.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01 11 00 - Summary of Work

B. Section 01 57 00 - Temporary Environmental Controls

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.1 SCHEDULE

A. The CONTRACTOR shall schedule the demolition of the existing wastewater facilities shown on the Contract Drawings.

3.2 DEMOLITION OF EXISTING WASTEWATER FACILITIES

A. The OWNER may wish to salvage equipment from the existing wastewater facilities.

B. All property not salvaged by the OWNER shall become the property of the CONTRACTOR and shall be removed and disposed of by the CONTRACTOR unless otherwise directed.

C. The CONTRACTOR shall break up the bottom slabs of existing wastewater treatment structures and make them not suitable for water retention and then may proceed to fill up these structures with materials to be disposed of. All excess materials which cannot be contained in these structures shall be removed from the site and properly disposed of.

D. The CONTRACTOR shall remove all other existing equipment, exposed piping, and miscellaneous items in the existing wastewater facilities.

E. The CONTRACTOR shall take great care that no damage is caused by dust or water during demolition.

F. Any adjacent facilities damaged during demolition shall be restored to original condition by the CONTRACTOR at no expense to the OWNER.

**** END OF SECTION ****

SECTION 02 41 13 - REMOVING PAVEMENT AND MISCELLANEOUS STRUCTURES

PART 1 -- GENERAL

1.1 SUMMARY

A. This section covers the furnishing of all labor, materials, tools, equipment, and performances of all work and services necessary or incidental to the removal of pavement and miscellaneous structures as indicated in the drawings or as specified herein.

1.2 METHOD OF MEASUREMENT AND PAYMENT

A. Measurement and compensation for the following items shall be paid according to the referenced specification or as modified below:

1. The UNIT PRICE bid for removing pavement and miscellaneous structures shall include all costs of labor, materials, equipment, and ultimate disposal required to complete the work, as specified.

B. The furnishing and installing of specific items and/or the performance of work under certain circumstances shall not be individually paid. The costs shall be included in the unit price bid for the associated removal and excavation items. Such items of work include but are not limited to:

1. Saw cutting - bituminous and/or concrete, driveways, sidewalks, pavements, curb and gutter, and other impervious surfaces.
2. Removing, storing, and reinstalling mailboxes, street signs, or similar structures which must be moved to construct the project.
3. Disposal of excess excavated material and debris.
4. Removal and disposal of bituminous or concrete pavement, unless designated for salvaging.
5. Removing, salvaging and storing, or disposing of manhole and catch basin castings.
6. Loading, hauling, stockpiling, and placing as directed (i.e., leveling) designated salvage items to a location directed by the Owner.
7. Fees and permits for the disposal of materials.
8. Removal and disposal of existing sanitary sewer pipe, storm sewer pipe, watermain, and service pipes.
9. Bulkheading the ends of existing pipes designated by the Engineer to be abandoned in place.
10. Protection from damage of structures or other surface improvements that are not to be removed, and subsequent repair and/or replacement if damaged by Contractor operations.

1.3 SPECIFICATIONS REFERENCES

A. MnDOT Specification Section 2104 shall apply to the removal of pavement and miscellaneous structures, except as modified herein.

B. Unless noted otherwise, the provisions in this section are in addition to the referenced specification.

1.4 SUBMITTALS

A. No exception to the referenced specification is made.

PART 2 -- PRODUCTS

2.1 NO EXCEPTION TO THE REFERENCED SPECIFICATION IS MADE.

PART 3 -- EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

A. Remove existing bituminous, curb and gutter, walks, drives, steps, and other specified items where shown on the plans and/or required for the construction of the project.

B. Saw cut bituminous and concrete surfaces prior to excavation, to produce a clean-cut breakage joint.

C. Dispose of all concrete and bituminous removal items, rubbish, and debris outside of the construction zone. It shall be the Contractor's responsibility to secure all required permits and pay all fees associated with the disposal of the material and securing the disposal site.

D. Remove existing mailboxes, street signs, and similar structures that must be removed to construct the project. Restore these facilities to the original location or a location designated by the Owner when work has progressed past the location of the structure. The Contractor shall reinstall or replace those structures which are damaged or lost during the course of construction with new materials or components.

E. The Contractor shall take full responsibility to protect structures or other surface improvements from damage that are not to be removed. If damage to these facilities occurs due to the construction of the project, the Contractor shall replace or repair them.

F. The Owner will designate which existing hydrants, valves and boxes, manhole castings, and other items removed as part of the construction, are to be salvaged. All other items shall be disposed of by the Contractor.

G. In general, all existing watermain, sanitary sewer, and storm sewer pipes being replaced by new improvements shall be considered as debris and removed during the construction process. In certain instances, existing pipes may be abandoned in place, with the approval of the Engineer.

H. Where existing pipes are to be abandoned in place, the exposed pipe ends shall be bulkheaded shut with a watertight non-shrink concrete grout at a thickness of not less than one pipe diameter.

****END OF SECTION****

PROJECT MANUAL

Volume 2 of 2

(Division 3 through Appendices)

Wildwood Avenue Lift Station Replacement

0N1.131616

City of Birchwood Village

Birchwood, MN

BOLTON & MENK

Real People. Real Solutions.

Bolton-Menk.com

CERTIFICATIONS PAGE

PROJECT MANUAL

FOR

WILDWOOD AVENUE LIFT STATION REPLACEMENT

0N1.131616

CITY OF BIRCHWOOD VILLAGE

BIRCHWOOD, MN

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: _____

Typed or Printed Name: Jacob Humburg

Date: 10/28/2024 License Number: 56751

TABLE OF CONTENTS

Wildwood Avenue Lift Station Replacement
0N1.131616
City of Birchwood Village, MN

CONTRACT DOCUMENTS:

PROJECT MANUAL:

VOLUME 1 OF 2

Introductory Information, Bidding Requirements, Contract Forms, and Conditions of Contract

Specifications

VOLUME 2 OF 2

APPENDIX A EPA REQUIRED DOCUMENTS

1. Equal Opportunity Clause (41 CFR 60-1.4) and Equal Employment Opportunity (Executive Order 11246)
2. Davis-Bacon Act (40 U.S.C. 3141-3148)
3. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)
4. Rights to Inventions Made Under Contract or Agreement (37 CFR Part 401)
5. Clean Air Act (42 U.S.C. 7401-7671q)
6. Debarment and Suspension (Executive Orders 12549 and 12689)
7. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)
8. Prohibition on Certain Telecommunications (2 CFR 200.216)
9. Procurement of Recovered Materials (2 CFR 200.323)
10. Domestic Preferences for Procurement (2 CFR 200.322)
11. Micro-Purchase Acquisition Threshold (2 CFR 200.320)
12. Federal Water Pollution Control Act (33 U.S.C. 1251-1387)
13. Resource Conservation and Recovery Act (2 CFR 200.323)
14. Build America Buy America Act (2 CFR Part 184)
15. DBE Overview and Requirements (40 CFR Part 33.202 and 33.203)
16. Federal Wage Rates

APPENDIX B 2023 GEOTECHNICAL REPORT

APPENDIX C PLANS – 2001 LIFT STATION MODIFICATIONS

DRAWINGS (UNDER SEPARATE COVER):

12 sheets numbered G0.01 through E0.03, inclusive, dated 10/28/2024, and with each sheet bearing the following general title:

Wildwood Avenue Lift Station Replacement
City of Birchwood Village, Minnesota

******END OF SECTION******

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. Concrete has been designed to conform with ACI 318 (latest edition). Concrete construction shall also conform to ACI 301 and ACI 350. Except where this SECTION is variance therewith, such publications are hereby made a part of this specification.

B. Except as mentioned in Paragraph 1.2, this section shall include (but is not limited to) the following:

1. Footings and foundation walls of all descriptions.
2. Bases, pads, and footings for equipment.
3. Concrete accessories and building in cast-in-place items furnished under other sections.
4. All design mixes and tests.
5. Expansion joints in concrete.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01 45 00 Testing and Inspection

B. Section 03 11 00 Concrete Formwork

1.3 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Commercial Standards

ACI 211.1	Recommended Practice for Selecting Proportions
ACI 212.2R	Guide for Use of Admixtures in Concrete
ACI 214	Recommended Practice for Evaluation of Strength Test Results of Concrete
ACI 301	Specifications for Structural Concrete
ACI 304	Recommended Practice for Measuring, Mixing, and Placing Concrete
ACI 305.1	Specification for Hot Weather Concreting
ACI 306.1	Standard Specification for Cold Weather Concreting
ACI 308	Recommended Practice for Curing Concrete
ACI 315R	Guide to Presenting Reinforcing Steel Design Details
ACI 318	Building Code Requirements for Structural Concrete
ACI 347	Recommended Practice for Concrete Formwork
ACI 350R	Concrete in Sanitary Engineering Structures
ASTM C31	Methods for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Specification for Concrete Aggregate
ASTM C39	Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Specification for Ready-Mixed Concrete
ASTM C143	Test Method for Slump of Portland Cement Concrete
ASTM C150	Specification for Portland Cement

ASTM C192	Methods for Making and Curing Concrete Test Specimens in the Laboratory
ASTM C260	Specifications for Air-Entraining Admixtures for Concrete
ASTM C494	Specifications for Chemical Admixtures for Concrete
ASTM C618	Specification for Fly Ash
ASTM C989	Specification for Slag Cement

1.4 SUBMITTALS

A. All submittals shall be in accordance with Section 01 33 00 “Submittals” and shall be made for products specified in this section.

B. **Mix Design:** The CONTRACTOR shall submit a design mix at least 3 weeks prior to scheduled concrete placement for each type and strength of concrete used for compliance with the specifications.

C. **Admixture:** When a water-reducing admixture is to be used, the CONTRACTOR shall furnish mix designs for concrete with admixture.

D. **Shrinkage Test Results:** Refer to Part 2.2.B of this Section.

E. **Independent Testing Laboratory Review:** An Independent Testing Laboratory that is familiar with local aggregates, cement, fly ash, and admixtures shall design or complete a design review and provide a recommendation of Mix Designs No. 1 and 2. Any changes to Mix Designs No.1 and 2 after review and approval shall require an additional review and approval. The review shall include the following items at a minimum:

1. Review the Akali Silica Reactivity (ASR) potential of proposed aggregates. Independent Lab shall state no reasonable potential for ASR or complete ASR testing per ASTM 1260.
2. Review the deleterious materials content of the proposed aggregate.
3. Review the mix design, cement, aggregate, and shrinkage test results to meet shrinkage requirements.
4. Review the concrete mix designs to meet strength requirements.
5. Review the compatibility of proposed admixtures.

F. **Certified Delivery Tickets:** Where ready-mix concrete is used, the CONTRACTOR shall provide delivery tickets at the time of delivery of each load of concrete. Each certificate shall show the total quantities by weight of cement, sand, each class of aggregate, admixtures, and the total gallons of water in the load. Each certificate shall, in addition, state the mix number, total yield in cubic yards, and the time of the day when the batch was dispatched. Quantity of water to be added at the site and still not exceed the water-cement ratio of the mix.

1.5 QUALITY ASSURANCE

A. Tests on component materials and for compressive strength of concrete will be performed as specified herein. Concrete density by ASTM C138, air content by ASTM C231/C173, and concrete temperature by ASTM C1064 as per ACI 301.

B. Slump

1. Slump test will be done in accordance with ASTM C143.

   (a) The concrete shall be designed for as low a slump as is practical to fill the form, embed the reinforcing steel, and be free of voids or honeycomb. Use a lower range for machine vibration. The slump shall be as specified in paragraph 2.2C.

2. Slump shall be measured for each mixed batch of concrete or each load delivered to the site.

C. Compression Tests

1. ENGINEER will take one (1) set of concrete cylinders for each day's pour of 25 cubic yards or less, plus one set for each additional 50 cubic yards poured on that day. Cylinders shall be of representative concrete, taken from mixer discharge at the actual time of pouring. OWNER will pay all costs of preparing, transporting to a laboratory, and making of tests. All such tests shall be made at an independent testing laboratory approved by the ENGINEER. The CONTRACTOR shall assist the ENGINEER in making the test cylinders.

2. Each set shall consist of 3 cylinders for 28-day strength testing and additional cylinders if 7-day and 10-day strengths are required. Per ACI two cylinders are to be tested at 28 days, and the average of the two is to be used for determining conformance. The hold cylinder (3rd cylinder) will be tested if the 28-day value is less than the specified strength.

3. Remaining test requirement shall follow ACI 318, except that if the average strength of any set of job-cured cylinders falls below the required strength, the cost of any additional cement necessary to correct subsequent mixes shall be borne by the CONTRACTOR. Also, if the strength is found deficient, the cost of hardened concrete or load tests shall be borne by the CONTRACTOR. The ENGINEER reserves the right to reject any portions of such questionable areas if, in his opinion, the tests indicate that such areas will not safely carry the design loads.

4. All concrete that fails to meet these specifications is subject to removal and replacement at the cost of the CONTRACTOR.

D. Construction Tolerances

1. Finish concrete shall meet the following tolerances:

   (a) Variations from plumb: .....± 1/4-inch per 10 feet but not more than 1-inch maximum for the entire length

   (b) Variations from level or indicated grade:.....± 1/4-inch per 10 feet but not more than 1/2-inch for the entire length

   (c) Variations from horizontal: .....± 1/4-inch per 10 feet but not more than 1/2-inch total variation

   (d) Variations in size and locations of openings or sleeves: .....±1/4-inch

   (e) Reinforcing steel placement:.....ACI 318, Section 7.5.2

   Where tolerances are not stated in the specifications, permissible deviations will be in accordance with ACI 347.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. CONTRACTOR shall be responsible for the delivery, storage, and handling of products.

B. Products that are discovered to be unsuitable for the intended use shall be removed promptly from the job site.

1.7 JOB CONDITIONS

A. Methods outlined in ACI 306.1, Standard Specification for Cold Weather Concreting, shall be followed if the concrete is to be placed when the ambient temperature is expected to be less than 40°F.

B. Methods outlined in ACI 305.1, Specification for Hot Weather Concreting, shall be followed if the concrete is to be placed when the ambient temperature is expected to exceed 90°F.

PART 2 -- PRODUCTS

2.1 MATERIALS

A. Cement

1. The Portland cement to be used shall meet the conditions of ASTM Specification C595 for Type 1L-MS. All cement shall be from the same manufacturer and from the same plant. High early-strength cement may be used only upon the Engineer's approval.

2. Testing compliance for the moderate sulfate (MS) designation shall be by ASTM Method C452.

3. The C_3A content of the Portland cement shall be less than 8 percent in all concrete. Where aggregates are alkali reactive, a cement containing less than 0.60 percent alkalies shall be used. If the Contractor wishes to use Cement with higher C_3A content and fly ash or slag cement to reduce ASR and increase the sulfate resistance, then the contractor, prior to bid, shall submit a detailed proposed mix design with expected shrinkage at 28 days, and the compressive strength at 7, 15 and 28 and 42 days. The use of the proposed mix design shall be approved at least seven (7) days prior to the bid.

4. Concrete forms shall not be removed before the concrete reaches 3000 psi strength. The use of high cement content to reach high early strength would increase the drying shrinkage of the concrete mix.

5. The cement content of the mix shall be adjusted to limit the drying shrinkage to 0.04% at 28 days of air drying. The test beam shall be water cured for 7 days and then air-dried (Modified ASTM C157). Shrinkage Reducing Admixtures to meet this requirement shall be provided at no additional cost to the OWNER. Concrete mix with higher 28-day strength and poor workability but passing the shrinkage requirements would not be accepted. The contractor will be responsible for delivering a concrete mix that could be finished as intended.

6. If Fly Ash is approved, it shall meet the requirements of ASTM C618, Class F. If slag cement is approved, it shall meet the requirements of ASTM C 989. If Fly Ash or Slag cement is approved for providing sulfate resistance, then the maximum water-cement ratio is reduced to 0.42, and the minimum compressive strength of Mixes 1, 2 & 3 in Paragraph 2.2 below is increased to 4500 psi as specified by ACI 350 for moderate sulfate exposure. If fly ash is used, it shall not exceed 15% of total cementitious material by weight. If slag cement conforming to ASTM C 989 is used, it shall not exceed 30% of total cementitious material by weight. The total of fly ash and other pozzolans and slag cement shall not exceed 40% of the total cementitious material by weight.

7. Class C fly ash shall not be used in Mix Designs No. 1 or 2 under any circumstances.

B. Aggregate

1. All fine and coarse aggregate shall be natural sands and gravels or crushed stone that is washed, cleaned, and conforming to ASTM C33 and shall be free of shale, chert, coal, iron oxide, and other deleterious materials. The shale content of the aggregate shall not exceed 0.1 percent. If the shale content is higher than the value specified, then if the Engineer approves the use of such aggregates for the shrinkage tests, the contractors submit shrinkage test results based on aggregate with comparable shale content to get such aggregates approved. Without shrinkage tests, aggregates with higher shale content will not be approved.
2. The maximum size of coarse aggregate shall not be larger than one-fifth of the narrowest dimension between forms of the member for which the concrete is to be used, nor larger than three-fourths of the minimum clear spacing between reinforcing bars. The coarse aggregate shall conform to Table II of ASTM Specification C33. Use 1-1/2-inch aggregate for structures requiring low shrinkage in lieu of ¾" aggregate (use Mix No. 1 instead of Mix No. 2.).
3. Fine Aggregate: Shall Conform to ASTM C33. Fine aggregate applied to concrete floor topping shall pass No.4 sieve, and not more than 10% shall pass Sieve No.100.

C. Water

1. Water shall be potable, clean, and free from strong acids, alkalies, oils, or organic materials and meet ASTM C1602, "Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete".

D. Admixtures (Air-entrained Concrete)

1. Admixtures for air-entrained concrete shall be used for sidewalks and all concrete exposed to the weather and water/wastewater retaining structures.
2. Water Reducing Admixtures shall meet the requirements of ASTM C494, Type A, and shall not contain any chloride ions except a trace amount.
3. Water Reducing and Retarding Admixtures shall meet the requirements of ASTM C494, Type D, and shall not contain any chloride ions except a trace amount.
4. High-Range Water-Reducing Admixture (Super Plasticizer) shall meet the requirements of ASTM C494, Type F or G, and shall not contain any chloride ions except a trace amount.
5. Air-entraining admixtures shall meet the requirements of ASTM C260.
6. The content of air-entrained concrete shall be 5 to 6 percent for concrete with 3/4" maximum size aggregate and 4 ½ to 5 ½ percent for concrete with 1-1/2" maximum size aggregate.
7. Manufacturer or Equal:
   (a) Darex or Daravair Series, by GCP Applied Technologies (W. R. Grace & Co.)
   (b) Toch Toxement AEA
   (c) Sika AEA
   (d) Protex

E. Chemical Admixture

1. The use of chemical admixture shall be in accordance with ACI 212.2R and shall be approved by the ENGINEER.
2. The admixture shall meet the requirements of ASTM C494 as specified above.
3. No chlorides shall be used.

4. Shrinkage Reducing Admixture (SRA)

    (a) The concrete shall be in compliance with the modified version of ASTM C157-17 where the maximum drying shrinkage shall not exceed 0.040% in 28 days following a 7-day submersion period (see table following section 2.2c herein for applicability).

    (b) Manufacturer:

        (1) Eclipse 4500, by GCP Applied Technologies (W. R. Grace & Co.) or equal.

F. Expansion Joints

1. Expansion joints in walks, curbs, and along edges of the wall between the floor and walls shall be pre-molded cork and asphalt.

2. Manufactures or Equal:

    (a) Brock White #3720

G. Waterstops

1. PVC water stops shall be provided as shown in the drawings and meet the CORPS OF ENGINEERS specification CRD-C572.

2. All water stops shall be 4” minimum. 6-inch water stops shall be used in all wall joints. The water stops shall meet the clearance requirements shown in the drawings.

3. Waterstops shall be applied continuously, and all joints heat welded.

4. Waterstops shall be tied in place prior to pouring concrete as recommended by the manufacturer.

5. Manufacturer or Equal:

    (a) Greenstreak

        (1) Style 732 (Horizontal Joints)

        (2) Style 732 or 703 (Vertical Joints); Style 703 is to be used only at locations where Style 732 cannot be used due to crowded rebar placement.

        (3) Style 790 for Labyrinth (Attached Joints)

        (4) Style 738 (Expansion Joints)

H. Non-Shrink Grout

1. All grout shall be non-metallic and non-gaseous, which can be poured, pumped, or damp-packed. The grout shall be suitable for both interior and exterior applications. It shall be non-shrink when tested in accordance with ASTM C1107 at a fluid consistency of 20-30 seconds.

2. The grout shall be a one-step product delivered to the job site in bags containing a premixed formulation requiring only the addition of water prior to use.

3. Precision non-shrink grout shall be used on all pumps, blowers, and equipment bases.

4. Manufacturer or Equal:

   (a) General Purpose: (attain 7000 psi strength in 28 days)

      (1) Masterflow 713

      (2) Duragrout - L & M 14K

      (3) Five Star Grout

   (b) Pump Bases, Equipment Pads: (shall attain 9000 psi strength in 28 days)

      (1) Masterflow 928

      (2) Crystex - L & M

      (3) Five Star Grout

I. Concrete Grout

1. Concrete grout shall be proportional with cement, fine and coarse aggregates, water, water reducer, and air-entraining agent to produce a mix having an average strength of 3000 psi at 28 days. The slump should not exceed 5 inches and should be low as practical and yet retain sufficient workability.

J. Cement Grout

1. Cement grout shall be a mixture of one-part Portland cement to 1 or 2 parts sand with sufficient water to place the grout. The water content shall not allow the grout to flow.

K. Water Plug

1. Water plug shall be used to seal any unused existing pipe penetration openings, and seepage through floors and walls.

2. Manufacturer or equal

   (a) Brock White C-7160

L. Curing Materials

1. Chemical curing compound: Blend of sodium, meta, and potassium silicates that effectively cure the concrete, leaving surfaces residual and membrane-free, ready to receive subsequent toppings, coatings, or penetrating treatments. “L&M Cure” as manufactured by L&M Construction Chemicals, Inc. or equal.

2. Burlap with Polythene backing sheets shall conform to ASTM C171 Class 3 and shall consist of burlap weighing not less than 10 oz/lin. yard, 40 inches wide, impregnated on one side of white opaque polyethylene 6 mils thick.

3. Membrane-Forming Curing Compound shall be liquid type conforming to ASTM C 309, Type 1, clear, Type 1D with fugitive dye for interior work, and Type 2, white, pigmented for exterior work.

M. Vapor Barrier: Shall meet the requirements of ASTM D4397 and shall be at least 10 mils thick.

2.2 CONCRETE STRENGTH

A. Mixes shall be designed to secure concrete having the compressive strength required by the drawings or stated in these specifications. The water/cement ratio shall be consistent with the concrete

strength requirements. Surface water contained in the aggregate shall be included as part of the mixing water. Consistency shall be designed for good workability and plasticity for proper placing.

B. The recommended cement content shall be adjusted to meet the maximum dry shrinkage of 0.04% at 28 days (ASTM C157). Shrinkage reducing admixture (SRA) shall be provided at no additional cost to the OWNER. The CONTRACTOR shall furnish the Independent Laboratory testing of Dry Shrinkage and Compressive Strength on mix designs with cement and aggregates from the same sources as evidence of the amount of dry shrinkage of the mix. If previous laboratory tests are not available on the mix designs proposed, then the Contractor shall hire an independent laboratory to conduct dry shrinkage and compressive tests, and the results shall be submitted with the mix design for approval by the ENGINEER. If trial mixes are used, make a set of at least 6 cylinders for compressive strength in accordance with ASTM C192 and 6 test specimens for shrinkage tests in accordance with ASTM C157. Test 3 cylinders for compressive strength and 3 test specimens for shrinkage at 7 days and three at 28 days. After approval of mixes, no substitution in material or changes in proportion will be allowed without additional testing. The water-to-cement ratio used for shrinkage testing shall not exceed the value listed in Paragraph C below. If the water-to-cement ratio for shrinkage testing is less than the value listed in Paragraph C, the shrinkage test water-to-cement ratio shall be the maximum value and replace the value listed in Paragraph C.

C. Concrete of the various mixes indicated and as required in all sections of these specifications or drawings shall be proportioned and mixed for the following requirements:

Mix Number	1	2	3	4
Minimum Compressive Strength at 28 Days	4000	4000	4000	3000
Recommended Minimum Cementitious Material Content*	As required by Design	As required by Design	600 lbs. per CY	
Maximum Water-Cement Ratio	0.45	0.45	0.50	0.53
Maximum Shrinkage at 28 days (%) (ASTM C157)	0.04	0.04	Not Applicable	Not Applicable
Portion of Structure	Alternate to Mix 2 for Slabs in contact w/water or fill	Slabs, piers, and walls in contact w/water, fill, or Slabs, Beams	Leveling slabs or topping	Footings & pipe encasement
Size of Coarse Aggregate	1-1/2”	3/4”	3/8” - #8	3/4”
Slump Maximum	+/- 2” of Design Recommendations	+/- 2” of Design Recommendations	4”	3”
Air Content†	6%± 1.5%	6% ± 1.5%	6-7 ½%	
* Note: Cement content shall be adjusted to meet the minimum compressive strength specified. † Air shall be eliminated from the mix for slabs on grade and building interior slabs not subject to freeze and thaw cycles.				

2.3 READY-MIXED CONCRETE

A. At the CONTRACTOR'S option, ready-mixed concrete may be used to meet the requirements as to materials, batching, mixing, transporting, and placing as specified herein and in accordance with ASTM C94.

B. Ready-mixed concrete shall not be allowed to stand in the truck more than one hour before placing in forms, including time in route.

C. Each batch of ready-mixed concrete delivered to the job site shall be accompanied by a certified weighmaster delivery ticket furnished to the ENGINEER in accordance with Paragraph 1.4 C, specified herein.

D. Water shall not be added at the job site unless authorized by the ENGINEER.

PART 3 -- EXECUTION

3.1 SUBGRADE PREPARATION

A. Subgrade shall be free from standing water, mud, and debris at the time of placing concrete.

B. The earth's surface shall be firm and damp.

C. When concrete is to be placed on highly pervious materials, which might allow flowing groundwater to damage fresh concrete, the contact surface shall be covered with a layer of asphalt-impregnated building paper or polyvinyl chloride sheeting prior to placement of the concrete.

3.2 PROPORTIONING AND MIXING

A. Proportioning of concrete mix shall conform to the requirements of Chapter 3 of ACI 301.

B. Mixing of concrete shall conform to the requirements of Chapter 7 of ACI 301.

C. **Slump:** Maximum slump shall be as specified in Paragraph 2.2C.

D. **Retempering:** Retempering of concrete or mortar which has partially hardened will not be permitted.

3.3 PLACING REINFORCEMENT

A. Steel shall be placed according to Section 03 20 00 and according to Section 5.5 of ACI 301, whichever is more rigid.

B. Immediately after delivery, reinforcing shall be sorted for size, shape, and length or by final usage. Store on racks clear of the ground and protect at all times from the weather.

C. The CONTRACTOR shall cooperate with the ENGINEER to permit inspection of reinforcement before concrete is placed. The CONTRACTOR shall notify the ENGINEER 24 hours in advance of any concrete pour.

D. Inspection by the ENGINEER does not relieve the CONTRACTOR of his responsibility to comply with the drawings and specifications. Pouring of the concrete signifies that the CONTRACTOR is satisfied with the placing of reinforcement, levels, and lines of forms, placement of sleeves and forms for holes, locations of accessories, etc.

3.4 CONSTRUCTION JOINTS

A. Construction joints shall be made only at points shown in the drawings or approved by the ENGINEER. All such joints shall be keyed with reinforcement as shown; joining faces shall be thoroughly cleaned, wetted, and slushed with neat Portland Cement paste immediately before the next pour.

3.5 EXPANSION JOINTS

A. Expansion joint material shall be flush with the finished floor elevation. Where floors are painted to be painted, the expansion joint material shall be covered with caulk.

3.6 PLACING OF CONCRETE

A. Placing of concrete shall conform to Chapter 8 of ACI 301.

B. Plant-mixed concrete shall not be allowed to stand in the truck more than one hour before placing in forms, including time in route.

C. Preparation:

1. Remove hardened concrete, wood chips, shavings, and other debris from forms.

2. Remove hardened concrete and foreign materials from the interior surfaces of mixing and conveying equipment.

3. Have forms and reinforcement inspected and approved by Resident Engineer before depositing concrete.

4. Provide runways for wheeling equipment to convey concrete to the point of deposit. Keep equipment on runways that are not supported by or bear on reinforcement. Provide similar runways for protection of vapor barrier on coarse fill.

D. Bonding: Before depositing new concrete on or against concrete that has been set, thoroughly roughen and clean existing surfaces of laitance, foreign matter, and loose particles.

1. Preparing surface for applied topping:

(a) Remove laitance, mortar, oil, grease, paint, or other foreign material by sandblasting. Clean with vacuum-type equipment to remove sand and other loose material.

(b) Broom clean and keep the base slab wet for at least four hours before the topping is applied.

(c) Use a thin coat of one-part Portland cement, 1.5 parts fine sand, bonding admixture, and water at a 50:50 ratio and mix to achieve the consistency of thick paint. Apply to a damp base slab by scrubbing with a stiff fiber brush. New concrete shall be placed while the bonding grout is still tacky.

E. Placing: For special requirements, see paragraphs HOT WEATHER and COLD WEATHER.

1. Do not place concrete when weather conditions prevent proper placement and consolidation, when concrete has attained its initial set, or has contained its water or cement content for more than 1 1/2 hours.

2. Deposit concrete in forms as near as practicable in its final position. Prevent splashing of forms or reinforcement with concrete in advance of placing concrete.

3. Do not drop concrete freely more than 10 feet for concrete containing the high-range water-reducing admixture (superplasticizer) or 5 feet for conventional concrete. Where greater drops are required, use a tremie or flexible spout (canvas elephant trunk) attached to a suitable hopper.

4. Discharge contents of tremies or flexible spouts in horizontal layers not exceeding 20 inches in thickness and space tremies such as to provide a minimum of lateral movement of concrete.

5. Continuously place concrete until an entire unit between construction joints is placed. The rate and method of placing concrete shall be such that no concrete between construction joints will be deposited upon or against partly set concrete after its initial set has taken place or after 45 minutes of elapsed time during concrete placement.

6. On the bottom of members with severe congestion of reinforcement, deposit a 1-inch layer of flowing concrete containing the specified high-range water-reducing admixture (superplasticizer). Successive concrete lifts may be a continuation of this concrete or concrete with a conventional slump.

7. Concrete on metal deck:

   (a) Concrete on metal deck shall be minimum thickness shown. Allow for deflection of steel beams and metal deck under the weight of wet concrete in calculating concrete quantities for the slab.

   (b) The Contractor shall become familiar with the deflection characteristics of the structural frame to include the proper amount of additional concrete due to beam/deck deflection.

3.7 COLD-WEATHER REQUIREMENTS

A. Curing of concrete shall conform to Chapter 12 of ACI 301 and to these specifications.

B. Concrete must be kept wet for at least five days. Any concrete subject to rapid drying from wind or sun shall be protected by canvas, straw, polyethylene, curing compound, or other approved methods for this period.

C. Floors or walks shall not be used for any purpose until curing is complete. The floor, when used, shall be kept clean of nails, sand, and all abrasive materials.

D. For cold weather work, the CONTRACTOR shall also follow recommendations ACI 306.1, The CONTRACTOR shall be familiar with these procedures and shall provide protection as outlined in ACI 306.1. From October 15 to April 15, the concrete shall be delivered to the site at a temperature not less than 60°F. The CONTRACTOR may request a variance on a daily basis if the expected low temperature for the day is to be above 32°F.

E. The CONTRACTOR shall maintain a daily log outlining the cold weather concreting protection methods used. A signed copy of these logs shall be submitted to the ENGINEER weekly. The log shall be a thorough, dated, daily diary giving clear reference to the structure, location, and quantity of each concrete pour. At a minimum, the following information, as outlined in ACI 306.1, shall be included in the diary:

   1. Date, time, and quantity of pour.

   2. Daily outside high temperature.

   3. Daily outside low temperature.

   4. Basic daily weather conditions, including wind conditions, cloud conditions, and precipitation.

   5. Concrete temperature in the truck at the time of delivery.

   6. Concrete temperature ranges throughout the entire pour at the end of the pour for on-grade placements with a sketch and the temperature of the concrete at the end of the pour for walls and columns.

   7. Protection methods being utilized.

   8. Period of protection and temperatures of the concrete at 12-hour intervals during this protection period

   9. If shelters are utilized, interior air temperatures of the shelter at 12-hour intervals.

   10. Precautions utilized to prevent the drying and carbonation of the concrete protected by shelters.

11. Relative humidity inside the shelters.
12. Method of gradual cooling of the concrete at the end of the protection period.
13. Preparation and protection of the subgrade, forms, reinforcing steel, etc., prior to placement of the concrete.

F. Ready-mix suppliers log outlining the methods of heating the materials used in the concrete mixture for each pour.

G. All admixtures used for cold weather concreting shall be submitted with the design mix data for approval. No calcium chloride accelerators will be allowed in the concrete.

3.8 HOT WEATHER PLACEMENT

A. Concrete temperature prior to placement shall not exceed 90° F.

B. Concrete shall not be placed when either the ambient temperature or concrete temperature exceeds 90°F unless the following precautions are taken:

1. Dampen subgrade, forms, and reinforcement prior to placement.
2. Dampen aggregates slightly if they are dry and absorptive.
3. Supply a concrete mix with set retarders meeting ASTM C 494 to ensure the concrete remains plastic until the completion of finishing operations.
4. Concrete shall not be retempered.
5. Minimize the total time between the commencement of concrete placement and the start of the curing process.
6. Apply white pigmented curing compound (ASTM C 309, Type 2) at the coverage rate recommended by the manufacturer.
7. Moist cure when curing compound has not been applied within 2 hours of concrete delivery or as soon after final finishing as practical.
8. Commence curing after the final steel troweling or when the surface is uniformly hardened past the “thumbprint hard” stage, with no free water at the surface.

C. Under no circumstances shall concrete be placed when either the ambient air temperature or concrete temperature reaches 95°F.

D. Concrete materials shall be kept as cool as possible by shading or evaporative cooling. To lower the temperature of the concrete mix, equal volumes of ice may be used to substitute for portions of the mixing water.

3.9 REMOVAL OF FORMS

A. Forms shall be removed without damaging the concrete. No loading will be permitted on green concrete. Members which must support their own weight shall not have their forms removed until they have attained at least 75 percent of their 28-day strength of the concrete specified. Forms for all vertical walls and columns shall remain in place at least 48 hours after the concrete has been placed. Forms for all the work not specifically mentioned herein shall remain in place for periods of time as determined by the Engineer.

B. After removal of forms, concrete shall be cured as specified in Paragraph 3.14

3.10 CONCRETE FINISH

A. Finish on the sidewalk shall be troweled and broomed. The remaining finished concrete floors, tank bottoms, or stairs shall be a smooth trowel finish.

B. Steel trowel finishing shall be done in such a manner as to produce a dense, smooth, impervious surface, free of blemishes, waves, dips, humps, pockets, cat-faces, or trowel marks. Care shall be taken that no excess water is present when the finish is started. Troweling shall be delayed until the water sheen produced by floating is disappearing. Apply a curing compound immediately after troweling unless the concrete is being cured by wet curing, then cure as per the burlap manufacturer's recommendations. Finish painting shall be as specified in Section 09 91 00 "Painting".

C. Concrete floors and tank bottoms shall be finished monolithically with no special concrete or cement mortar topping for the finish. The slabs shall be brought to an even and true finish slightly above the elevations given in the drawings so that when properly consolidated and finished, the surface will be at the grades shown. Concrete shall then be tamped, straight-edged, floated, and finished as above.

3.11 FLOAT FINISH

A. A float finish shall be given to slab surfaces that receive trowel finish and other finishes as specified and to slab surfaces that are to be covered with membrane waterproofing, membrane roofing, or terrazzo.

B. After placing is completed, concrete shall not be worked further until ready for floating. Floating shall begin when the water has disappeared, when the concrete mix has stiffened sufficiently to permit proper operation of a power-driven float, or when both conditions have occurred. Any surface water remaining shall be removed before floating. The surface shall then be consolidated with power-driven floats. Hand floating shall be used in locations inaccessible to power-driven floats. The trueness of the surface shall be checked at this stage with a 10-foot 3000-millimeter straightedge.

C. Surface shall be plane to a tolerance not exceeding 1/4 inch in 10 when tested with a 10-foot straightedge placed on the surface at not less than two different angles. High spots shall be cut down, and low spots shall be filled. Surfaces shall be uniformly sloped to drains. Immediately after completion of leveling, the surface shall be refloated to a uniform, smooth, granular texture.

3.12 TROWEL FINISH

A. Finish shall be given to slab surfaces that are to be exposed to view and to slab surfaces to be covered with resilient flooring, paint, or other finish coating system. After completion of the float finish as specified above, the surface shall receive a trowel finish. First troweling after completion of float finish shall be done by a power-driven trowel and shall produce a smooth surface that is free of defects but may contain some trowel marks. Additional troweling shall be done by hand after the surface has hardened sufficiently. Final troweling shall be started when a ringing sound is produced as the trowel is moved over the surface. The surface shall be consolidated by hand troweling operation. The finished surface shall be free of trowel marks, uniform in texture and appearance, and plane to a tolerance not exceeding.

B. 1/4 inch in 10 feet when tested with a 10 feet straightedge placed on the surface in any direction. Surface defects of sufficient magnitude to show through floor covering shall be removed by grinding.

3.13 NON-SLIP BROOM FINISH

A. Immediately after completion of the trowel finish, the surface shall be slightly roughened by brooming with a fiber-bristle brush in a direction transverse to that of main traffic.

3.14 CONCRETE CURING AND PROTECTION

A. General

1. Freshly placed concrete shall be protected from premature drying and cold or hot temperature and shall be maintained without drying at a relatively constant temperature for the period of time necessary for the hydration of cement and proper hardening of concrete. Initial curing shall start as soon as free water has disappeared from the surface of the concrete after placing and finishing. Concrete shall be kept moist for a minimum of 48 hours. Forms removed within seven (7) days after placement of concrete, the concrete surface shall be cured by one of the curing methods specified in Paragraph 3.14B below.

2. Final curing shall immediately follow initial curing and before the concrete has dried. Final curing shall continue until a cumulative number of hours or fraction thereof (not necessarily consecutive) during which the temperature of the air in contact with the concrete is above 50 degrees F 10 degrees C has totaled 168 hours. Alternatively, if tests are made of cylinders kept adjacent to the structure and cured by the same methods, final curing may be terminated when the average compressive strength has reached 75 percent of the 28-day design compressive strength. Rapid drying at the end of the final curing period shall be prevented.

B. Curing Methods

1. Curing shall be accomplished by moist curing, moisture-retaining cover curing, membrane curing, and by combinations thereof, as specified.

2. Moist curing: Moisture curing shall be accomplished by any of the following methods:

   (a) Keeping the surface of concrete wet by covering it with water

   (b) Continuous water spraying

   (c) Covering the concrete surface with specified absorptive cover for curing concrete saturated with water and keeping absorptive cover.

   (d) Wet by water spraying or intermittent hosing. An absorptive cover shall be placed to provide coverage of concrete surfaces and edges with a slight overlap over adjacent absorptive covers.

3. Moisture-cover curing: Moisture-retaining cover curing shall be accomplished by covering.

   (a) Concrete surfaces with specified moisture-retaining cover for curing concrete. Cover shall be placed directly on concrete in the widest practical width, with sides and ends lapped at least 3 inches. Cover shall be weighted to prevent displacement; tears or holes appearing during the curing period shall be immediately repaired by patching with pressure-sensitive, waterproof tape or other approved methods.

4. Membrane curing:

   (a) Membrane curing shall be accomplished by applying a specified membrane-forming curing compound to damp concrete surfaces as soon as moisture film has disappeared. The curing compound shall be applied uniformly in a two-coat operation by power-spraying equipment using a spray nozzle equipped with a wind guard. The second coat shall be applied in a direction at right angles to the direction of the first coat. Total coverage for two coats shall be not more than 200 square feet per gallon of curing compound. Concrete surfaces which are subjected to heavy rainfall within 3 hours after the curing compound has been applied shall be resprayed by method and at the rate specified. Continuity of coating shall be

maintained for the entire curing period, and damage to the coating during this period shall be repaired immediately.

(b) Membrane-curing compounds shall not be used on surfaces that are to be covered with coating material applied directly to concrete or with a covering material bonded to concrete, such as other concrete, liquid floor hardener, waterproofing, dampproofing, membrane roofing, painting, and other coatings and finish materials.

5. Curing Formed Surfaces

(a) If forms are removed within seven (7) days of placement of concrete, then the concrete shall be cured by any of the curing methods specified.

(b) Curing of formed surfaces, including undersurfaces of girders, beams, supported slabs, and other similar surfaces shall be accomplished by moist curing with forms in place for full curing period (7 days) or until forms are removed. If forms are removed before seven (7) days, final curing of formed surfaces shall be accomplished by any of the curing methods specified above, as applicable.

6. Curing Unformed Surfaces

(a) Initial curing of unformed surfaces, such as monolithic slabs, floor topping, and other flat surfaces, shall be accomplished by membrane curing. Unless otherwise specified, final curing of unformed surfaces shall be accomplished by any of curing methods specified above, as applicable final curing of concrete surfaces to receive liquid floor hardener of finish flooring shall be accomplished by moisture-retaining cover curing.

**** END OF SECTION ****

SECTION 26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL

PART 1 -- GENERAL

1.1 SECTION SUMMARY

A. Section Includes, but not limited to:
   1. General Requirements for Electrical
   2. Equipment and Materials
   3. General Workmanship and Installation Requirements for Electrical.

1.2 RELATED SECTIONS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 0 and Division 01 Specification Sections apply to this Section.

B. Division 26: Electrical

C. When a Specification Section refers to other Sections under the Article on Related Sections, this is for Contractor's convenience. It shall in no way relieve the Contractor of responsibilities stated in other Sections of the Specifications, even though these Sections are not referenced. The Contractor is responsible for all information contained in this Division's Specifications as well as for information contained in all other Divisions.

1.3 REGULATORY REQUIREMENTS

A. Meet or exceed all current applicable codes, ordinances, and regulations for all installations. Promptly notify the Engineer, in writing, if the contract documents appear to conflict with governing codes and regulations. Contractor assumes all responsibility and costs for correcting non-complying work installed without notifying the Engineer.

B. Higher quality of workmanship and materials indicated in the Contract Documents takes precedence over that allowed in referenced codes and standards.

C. Perform all work in compliance with the currently adopted version of the following codes and standards for this project:
   1. Energy Codes and Standards:
      a. International Energy Conservation Code (IECC)
      b. Illuminating Engineering Society of North America (IESNA)
      c. American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE 90.1)
   2. International Code Council:
      a. International Building Code (IBC)
      b. International Fire Code (IFC)
   3. National Fire Protection Association Codes and Standards:
      a. NFPA 70 - National Electrical Code
      b. NFPA 72 - Fire Alarm Code
      c. NFPA 101 - Life Safety Code
   4. National Electrical Safety Code (ANSI C2)
   5. City, State and Local Building Codes and Ordinances
   6. City, State and Local Fire Codes and Regulations
   7. Occupational Safety and Health Administration Regulations (OSHA)
   8. Americans with Disabilities Act (ADA)
   9. Uniform Federal Accessibility Standards
   10. State Department of Health Codes and Regulations
   11. Testing Agencies:
      a. Underwriters Laboratory
      b. Intertek ETL

1.4 REFERENCES

A. Use the latest edition of the standard or the edition required by governing code were referenced in the specifications by the following abbreviations:
   1. ANSI American National Standards Institute:
      a. C2 - National Electrical Safety Code.
      b. C62.41-IEEE - Recommended Practice for Surge Voltages in Low-Voltage AC Power Circuits.
   2. ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers
   3. CBM – Certified Ballast Manufacturer
   4. EPA-Environmental Protection Agency
   5. ETL – Electrical Testing Laboratory
   6. ICEA - Insulated Cable Engineers Association:
      a. S-95-658 - Thermoplastic-Insulated Wire and Cable.
      b. S-65-375 - Rubber-Insulated Wire and Cable.
   7. IEEE Institute of Electrical and Electronic Engineers:
      a. 112 - Standard Test Procedure for Polyphase Induction Motors and Generators.
      b. 519 - Recommended Practices and Requirements for Harmonic Control in Electric Power Systems.
   8. IES - Illuminating Engineering Society
   9. NBFU - National Board of Fire Underwriters
   10. NECA – National Electrical Contractor's Association:
      a. NECA 1 - Standard Practices for Good Workmanship in Electrical Contracting.
   11. NEC - National Electrical Code
   12. NECA – National Electrical Contractors Association:
      a. NECA 101 – Standard for Installing Steel Conduit
      b. NECA 102 – Standard for Installing Aluminum Rigid Metal Conduit.
      c. NECA 111 – Standard for Installing Nonmetallic Raceways (RNMC, LFNC).
   13. NEMA National Electrical Manufacturers Association:
      a. TC 2 - Electrical Polyvinyl Chloride (PVC) Tubing and Conduit.
      b. MG 1 - Motors and Generators.
      c. PB 2 - Deadfront Distribution Switchboards.
      d. ICS 2 - Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2,000 Volts AC or 750 Volts DC.
      e. 250 - Enclosures for Electrical Equipment (1,000 Volts Maximum).
      f. WC 5 - (See ICEA S-95-658).
      g. WC 7 - (See ICEA S-95-658).
   14. NESC – National Electric Safety Code
   15. NFPA National Fire Protection Association
   16. OSHA Occupational Safety and Health Administration:
      a. 29 CFR 1910 - Occupational Safety and Health Standards.
   17. UL Underwriters' Laboratories, Inc.:
      a. UL-6 - Rigid Metal Conduit.
      b. UL-83 - Thermoplastic - Insulated Wires and Cables.
      c. UL-360 - Liquid-Tight Flexible Steel Conduit.
      d. UL-467 - Electrical Grounding and Bonding Equipment.
      e. UL 486D - Insulated Wire Connector Systems for Underground Use or In Damp or Wet Locations.
      f. UL-508 - Industrial Control Equipment.
      g. UL-651 - Schedule 40 and 80 Rigid PVC Conduit.
      h. UL-810 - Capacitors.
      i. UL-891 - Dead-Front Switchboards.

j. UL-913 - Intrinsically Safe Apparatus and Associated Apparatus for Use In Class I, II, and III, Division 1, Hazardous (Classified) Locations.
k. UL-1008 - Transfer Switch Equipment.
l. UL-1012 - Power Units Other Than Class 2.
m. UL-1277 - Electrical Power and Control Tray Cables With Optional Optical Fiber Members
n. UL-1449 - Surge Protection Devices
o. UL-1479 - Fire Tests of Through-Penetration Firestops.

1.5 DEFINITIONS

A. The terms defined below apply to all work included in Division 26.
1. The work – The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.
2. Furnish – to obtain in new condition ready for installation into the work.
3. Install – to store, set in place, connect, and place into operation into the work.
4. Provide – to furnish and install.
5. Connect – to bring service to the equipment and make final attachments including necessary switches, outlets, boxes, terminations, or other final connections.
6. Conduit – includes in addition to conduit, all fittings, pull boxes, hangers and other supports and accessories related to such conduit.
7. Concealed – hidden from sight in chases, furred spaces, shafts, hung ceilings, embedded in construction, in crawl spaces or buried.
8. Exposed: not installed underground nor concealed as defined above.
9. Building structure or building structural members - consists of steel columns, steel beams, steel joists (top chord and at panel points), concrete walls and concrete block walls. Metal decking, joist bridging, and bottom chords of bar joists shall not be construed as building structure nor as a building structural member for the purpose of support.

B. The drawing and specifications constitute the Contract Documents. Any item noted in the specification or shown on the drawings is part of the Contract Documents.

C. The contractor shall field-verify all dimensions and notify the Engineer of any conflicts or discrepancies, in writing, prior to submittals and installation. If prior notification is not provided, Contractor is responsible for resolution of all dimensional conflicts.

1.6 QUALITY ASSURANCE

A. Regulatory Requirements:
1. Initiate, maintain, and supervise all safety precautions required with this work in accordance with the regulations of the Occupational Safety and Health Administration (OSHA) and other governing agencies.

B. Environmental Requirements:
1. Do not remove or disturb any asbestos containing materials from the project. Immediately stop work and notify the Owner if asbestos containing materials are suspected.
2. Do not dispose of any PCB containing materials. Disposal of all PCB containing materials will be the responsibility of the Owner.

C. Provide new, first quality material for all products specified. Do not reuse materials unless indicated or approved by the Engineer.

D. The contractor shall have knowledge of the latest edition of NFPA 70 (NEC) and additional governing codes. In addition to the work shown in the Contract Documents, Contractor shall provide all work to comply with these references. Additional services will not be awarded for Contractor to perform work to satisfy the AHJ inspection comments. All work is to be included in Base Bid.

E. Provide equipment specified in this section which is listed and labeled by a nationally recognized testing laboratory.

F. Comply with ANSI as applicable to equipment specified in this section.

G. Comply with NEMA as applicable to equipment specified in this section.

H. Equipment provided with SCCR ratings/labels shall be provided with sufficient SCCR values to exceed the available short circuit current at the equipment connection point. Where short circuit current is not identified in the Contract Documents, the contractor is responsible for providing the necessary calculations for coordination.

1.7 PROJECT/SITE CONDITIONS

A. Site Inspections:
   1. Before submitting a proposal on the work contemplated, examine the site of the proposed work, and become thoroughly familiar with existing conditions and limitations. No extra compensation will be allowed because of misunderstanding as to the amount of work involved nor bidders' lack of knowledge of existing conditions which could have been discovered or reasonably anticipated prior to bidding.
   2. Conduits, pipes, ducts, lights, devices, speakers, etc., shown on the drawings as existing have been based on existing plans and casual site observations, and may not be installed as originally shown. It is the Contractor's responsibility to visit the site and make an exact determination of the existence, location, and condition of such facilities prior to submitting a bid.

B. Correlation of Work:
   1. Consult the drawings and specifications of all other Divisions for correlating information and lay out work so that it will coordinate with other trades. Verify dimensions and conditions (i.e., finished ceiling heights, footing and foundation elevations, beam depths, etc.) with all drawings. Notify the Engineer of any conflicts that cannot be resolved, in the field, by affected trades. Replacement of work due to lack of coordination and failure to verify existing conditions will be completed at no cost to the Owner.
   2. Install all conduits, cable tray, busduct, equipment, etc. allowing proper code and maintenance clearances and to avoid blocking passageways and access panels.
   3. Where work must be replaced due to the failure of the Contractor to verify the conditions existing on the job, such replacement must be accomplished at no cost to the Owner. This applies to shop fabricated work as well as to work fabricated in place.
   4. Throughout the course of the work, minor changes and adjustments to the installation may be requested by the Engineer. The Contractor shall perform adjustments without additional cost to the Owner, where such adjustments are necessary to the proper installation and operation within the intent of the Contract Documents. This does not include work already completed.
   5. Obtain exact location of connection to equipment, furnished by others, from the person furnishing the equipment.
   6. Include better quality, greater quantity or higher cost for an item or arrangement where a disagreement exists in the drawings and specifications.

C. The Contract Documents shall govern in the instances where requirements indicated are greater than those stated in the governing codes and standards.

1.8 FIRESTOPPING

A. Provide firestopping around all new penetrations, sleeves and openings through all partitions, walls, and floors.

B. Provide UL listed components installed by certified and factory trained personnel.

1.9 SEQUENCING AND SCHEDULING

A. Refer to General Conditions and Requirements.

1.10 EQUIPMENT INSTRUCTIONS AND PARTS LITERATURE

A. Instruction and parts literature are generally packed with electrical equipment and devices. Contractors shall remove this literature from the packing container or equipment enclosure, identify the literature with the equipment to which it applies, and file the literature in loose-leaf binders with index tabs. Each binder shall have an index which lists each piece of equipment and the literature which applies to it. An index tab shall be provided for each piece of equipment.

B. Contractors shall establish a procedure with the other trades for receiving, identifying, and filing literature for devices which are removed from their packaging and installed by other trades.

1.11 SUBMITTALS

A. Submit the following items consistent with Division 0 and Division 1. Refer to each Section under Division 26 for additional submittal requirements particular to that Section.

B. Prior Approvals:
   1. Submit approval form for each request for prior approval.
   2. Submittals shall be formally presented to the Project Engineer. Submittals presented to the Engineer prior to approval of Owner Representative will not be reviewed or accepted.
   3. Submit electronic, written requests to use unspecified items, to the Engineer, no later than four (4) calendar days prior to the bid opening. Submit detailed information for proposed material or equipment specific to the project, clearly indicating all options included in the submittal.
   4. Accepted substitutions will be incorporated in an Addendum to the Contract Documents.
   5. The contractor is responsible for dimensional differences, electrical requirements, and any other resulting changes, when using accepted substitutions. The contractor is responsible for any additional costs incurred because of substitutions, including other contractors and Engineer fees.
   6. Material and equipment not specified or accepted in an Addendum will be removed and replaced at no cost or inconvenience to the Owner.

C. Work Scope Change:
   1. If a work scope change is requested and Contractor would like to be awarded additional compensation or a deduct from original contract is requested, Contractor shall provide a schedule of values for all associated proposed work.
      a. Pricing shall be grouped to represent each itemized work scope change.
      b. Each piece of equipment shall be itemized, along with cost of item. Labor to install said item shall be presented on a separate line item.
      c. Provide a final lump sum number for all work associated with the change and individual pricing for each item on the schedule of values.
      d. Engineer may request additional breakdown for improved clarity and Contractor must comply prior approval for the additional compensation or credit.
      e. Comply with the requirements set forth in Division 0 and Division 1.
   2. The contractor shall provide actual manufacturer and distributor invoices showing cost of work affected by the work scope change upon request of Engineer and/or Owner representative.
   3. Contractor is solely responsible for delays in schedule where Contractor is required to resubmit documentation, revise requested documentation or provide additional information associated to gaining approval for the work scope change.

D. Shop Drawings and Manufacturer's Information:
   1. Submit in accordance with Division 0 and Division 1. Unless noted otherwise, submit drawings to the Engineer for review within 30 calendar days after award of Contract.
   2. Provide digital copy in a PDF format:
      a. Files shall be accessible and neatly organized.
      b. Provide a table of contents which utilizes bookmarks and links. The links shall take the reader to a specific page when the reader clicks on the desired title in the table of contents. A link shall be provided for materials associated with each piece of equipment included in the O&M manual.

c. Product literature which demonstrates compliance with the specifications shall be highlighted or otherwise identified to be easily found.

3. Provide separate files for each submittal for each section. Combination submittals will be returned to the Contractor without review and count as 1 submittal. Do not combine submittals from multiple sections.
4. Include project name, name of Engineer, contractor, sub-contractor, manufacturer, supplier, and sales representative, include name, address, and phone number for the sales representative. Clearly identify section number and description of equipment submitted. Shop drawings not including all this information will be returned without review, and count as 1 submittal.
5. Examine all shop drawings noting capacity, arrangement, and physical dimensions. Clearly mark all relevant items on catalog data and cross-out unrelated information.
6. Submittals for equipment provided by the Electrical Contractor shall bear a stamp or specific written certification from the Electrical Contractor, certifying the submittals have been reviewed and approved by the submitting Electrical Contractor.
7. Provide the following shop drawing and manufacturer information:
    a. Product Data Sheets:
        1) Product and component data sheets which describe all equipment and devices to be provided.
        2) Include all features specified.
        3) Provide dimensioned prints with weights.
        4) Highlight or otherwise accentuate on each data sheet the specified product features and product numbers.
        5) Features or part numbers which do not apply shall be struck through, crossed out, blacked out, or otherwise identified as not applicable.
    b. Composite Drawing:
        1) Include power and control wiring for all systems and equipment.
        2) Show basic systems on composite drawing.
        3) Use terminal numbers on drawings and schematics.
        4) Use separate drawings to show details of sub-systems.
        5) Identify sub-system drawing interface points on composite drawing and sub-system drawings; terminal numbers of interface points shall be the same on both drawings.
        6) Revise or redraw manufacturer's standard drawings to meet above requirements.
    c. Record all Changes to Existing Systems:
        1) Revise all wiring diagrams and schematic diagrams to show final installation:
            a) Includes all new and existing equipment diagrams.
    d. Programmable Systems:
        1) Description of programmable system operation, including but not limited to input/output functions, control capabilities, configuration procedures, starting setpoints, etc.
        2) Preliminary graphic screens and reports.
            a) This submittal shall occur prior to shipment of the system.
    e. Manufacturers Installation Instructions:
        1) Include with shipment.
8. If the Engineer rejects (Make corrections noted/Submit corrected copy, Rejected/Submit specified item) two (2) times for material under the same section the Engineer will be compensated for the additional reviews. Compensation will be incorporated by Change Order and deducted from the Contractor's application for payment. The contractor is solely responsible for any project delays caused by having to resubmit submittals.

E. Operating and Maintenance Manuals:
1. Include all the information provided with the approved shop drawings and manufacturer's information.
    a. Update and complete control system drawings and descriptions for all equipment.
    b. All documentation shall include modifications made which reflect the final installation.
    c. Provide all completed testing reports.

2. Date the manuals with the day, month, and year they are provided to the Owner/Engineer.
3. Provide manufacturers' user manuals and installation instructions.
4. Provide 2 digital copies in a PDF format saved to an USB drive. The saved files shall be clearly identified and organized in a similar manner to the hard copies.
    a. Digital files shall be accessible and neatly organized.
    b. Provide a table of contents which utilizes bookmarks and links. The links shall take the reader to a specific page when the reader clicks on the desired title in the table of contents. A link shall be provided for materials associated with each piece of equipment included in the O&M manual.
5. Record all Changes to Existing Systems.
6. Insert revised documents into the Owner's existing operation and maintenance manuals in place of original documents, if such O&Ms exist.

F. Record Documents:
1. Provide three sets of hard copy record documents and two digital pdf copy. Record Drawings shall be of the same size as the original published contract drawings.
2. Shall be provided with the O&M's.
3. Record drawings shall include all work scope changes, including addenda.
4. Record drawings shall show locations of all above ceiling control devices, such as relays, contacts, control modules, monitor modules, power packs, fire/smoke detection equipment, etc.
5. Refer to Contract Documents for additional Record Drawing requirements.

PART 2 -- PRODUCTS

2.1 EQUIPMENT AND MATERIALS

A. All electrical and control equipment and materials shall be provided as specified in the Contract Documents.

B. All equipment and materials shall be new and shall bear the Underwriters Laboratories (UL) label if such products are listed by UL.

C. Where applicable, equipment and materials shall conform to ANSI, ICEA, IEEE, and NEMA Standards.

2.2 HAZARDOUS LOCATIONS

A. An area identified where fire or explosion hazards may exist due to flammable gases, flammable liquid-produced vapors, combustible liquid-produced vapors, combustible dusts or ignitable fibers/flyings.

B. Installations in areas identified as hazardous locations, at a minimum, meet the requirements of the latest edition of the National Electrical Code (NFPA 70). Where specifications are more conservative than the National Electrical Code requirements, the specification shall be followed.

C. Refer to drawings for hazardous location identifications.

D. All installations in Class 1, Division 1 and 2 hazardous locations shall meet the NEC requirements for a Class 1, Division 1 hazardous location. Unless noted otherwise.

2.3 CORROSIVE ENVIRONMENTS

A. A corrosive environment is an area or space which there are gases, vapors, liquids, or other material cause a caustic effect on materials, more so than standard air.

B. All products supplied in corrosive environments shall be suitable for installation and resist corrosion which may be caused by the potentially present caustic agent.

C. The following areas shall be considered as a corrosive environment.
1. Sanitary lift station wetwell.

PART 3 -- EXECUTION

3.1 CONSTRUCTION LIGHTING & POWER SYSTEM - REMODELING

A. Provide construction power and lighting that adheres to the NEC Article 590 – "Temporary Installations."

B. Refer to Division 1 for temporary electrical services.

C. For remodeling work in the existing building, use existing building distribution systems for construction power.

D. Replace all receptacles, switched, cover plates, etc., damaged by any Contractor during construction.

E. Materials furnished for the temporary light and power system remain Contractor's property. Remove when there is no longer any need for temporary light and power or when directed by the Project Representative.

F. Electrical energy costs shall be paid by the Owner.

3.2 PREPARATION

A. Continuity of Service:
   1. No Division 26 systems are to remain inactive at the end of the workday. Assure that the systems are all operational at the end of each workday. Coordinate temporary outages with the Owner.
   2. Coordinate/schedule all work with the Owner to minimize any disruptions. Confine all interruptions to the smallest possible area. Provide temporary connections if required to provide continuity of service.
   3. Inspect all areas affected by the interruptions and return all automatically controlled equipment, electrically operated equipment to the same operating condition prior to the interruption.

B. Use of Facility:
   1. Do not disturb normal use of the facility, except within the immediate construction area. Keep walks, driveways, entrances, etc. free and clear of equipment, material and debris.
   2. Store all equipment and material in a place and manner that minimizes congestion and is approved by the Owner.

3.3 INSTALLATION

A. Material and Workmanship
   1. Provide new material and equipment, unless noted otherwise. Protect equipment and material from damage, dirt, and the weather.
   2. Provide the highest quality workmanship and perform all work only by skilled mechanics. Install material and equipment in accordance with manufacturers' recommendations, instructions and current NECA standards.
   3. The Engineer reserves the right to reject material or workmanship not in accordance with the specifications, before or after installation.
   4. Engineer and Owner have the right to determine if equipment, boxes and covers are not accessible. Where electrical work is determined to be not accessible, Contractor shall modify the work as directed at no additional cost to the Owner.

B. Excavation and Backfilling:
   1. Provide all excavation and backfilling required to complete the installation of the electrical system. Conform with the provisions of Division 31 Earthwork of these specifications for all work.
   2. Bed all conduit and structures on a 6" thick compacted layer of granular material. Should unsatisfactory soil conditions be discovered, the Owner Representative will inspect the excavation and determine the necessary additional support required.

3. Backfill around conduit and structures by hand using coarse sand, pit run gravel or the native material if it is like the above. Remove all large stones, frozen lumps, perishable rubbish, and excessive amounts of clay. Carefully compact this material in 6" layers to a depth of 8" above the conduit, cable, or duct. Compact to not less than 90% outside the building and 95% within the building limits of maximum density given by ASTM D698-70T (Standard Proctor Density). Owner Representative reserves the right to require soil compaction tests in any areas which do not appear to be compacted properly with the cost of the test paid by the Contractor.
4. Replace all existing surface improvements (i.e., street pavement, curbs, sidewalks, finish sodding, etc.) removed or damaged in the course of the work unless such improvements are to be reconstructed under the general contract. Make all necessary arrangements to perform such repairs, pay all costs in connection therewith and include them in the bid.

C. Cutting and Patching:
1. Perform all cutting and patching necessary to work, unless specifically delegated to be performed under a different Division.
2. Obtain special permission from the Engineer before cutting structural members or finished material.
3. Perform all patching in a manner as to leave no visible trace and return the area affected to the condition of undisturbed work. Perform all patching by workers experienced, skilled, and licensed for the work involved. Work deemed unacceptable by Engineer or Owner Representative will not be accepted.
4. Patch all holes left because of demolition of electrical equipment and devices.
5. Drill all holes in masonry with rotary drill. Impact tools are not allowed. Core drill all holes in masonry and concrete for electrical raceway. Provide and dispose of all water required for core drilling. Coordinate with other trades to prevent damage from water.
6. Prevent the spread of dust, debris, and other material into adjacent areas.
7. Replace all ceiling tiles damaged during installation work with new tile.

D. Painting:
1. Refinish all electrical equipment damaged during shipping and/or installation to its original condition. Remove all rust; prime, and paint per manufacturer's recommendations for finish equal to original.

E. Coordination:
1. Coordinate the location of all outlets and associated equipment with all systems before installation. Work which must be replaced due to the failure of the Contractor to verify the job conditions and coordinate with other disciplines shall be completed at no additional cost to the Owner.
2. Coordinate all door swings in the field before locating devices.
3. Coordinate all equipment dimensions before submitting equipment. This includes all shop fabricated work as well as work fabricated in place. It shall be assumed that equipment submitted has been coordinated by Contractor and the submission indicates Contractor verifies equipment will fit in allocated location space. If Contractor believes there is or finds a workspace issue, Contractor shall notify Engineer prior to submitting equipment. Replacement or modification of equipment and/or space due to lack of coordination and failure to verify existing conditions shall be completed by the Contractor at no additional cost to the Owner.
4. The contractor shall be responsible for obtaining the exact location of connection to equipment furnished by others, from the person furnishing the equipment.
5. The contractor is responsible for coordinating elevator equipment ratings with the elevator equipment supplier. Incorrect equipment installation due to failure to coordinate equipment ratings shall be replaced by Contractor at no additional cost to Owner.
6. If conduit, wiring or equipment cannot be installed as specified, including but not limited to installing concealed or in designed space, Contractor shall notify Engineer with ample time to review the request before Contractor purchases and/or installs such equipment. Owner and Engineer cannot and will not be held responsible for delays in project for Contractor failure to provide ample notice to review and respond to the potential issue.

3.4 FIRESTOPPING

A. Provide firestopping around all new penetrations, sleeves and openings through all partitions, walls, and floors.

B. Install firestopping on both sides of each partition, completely filling the void around the opening.

C. The firestopping of interior of conduits and sleeves is by the contractor providing the cabling inside the conduit or sleeve.

3.5 RECEIVING AND STORING EQUIPMENT

A. All equipment shall be handled and stored in accordance with the manufacturer's instructions.

B. In general, equipment packaging is not designed to protect the contents for outdoor storage. As a minimum, Contractor shall store the equipment prior to installation in a clean, dry location free from excessive temperatures, humidity, or foreign materials normally encountered at a Site. If the storage facility is unheated, Contractor shall provide heating to protect equipment from condensation, which could cause components to corrode or to be otherwise damaged.

3.6 EQUIPMENT MOUNTING

A. Unless noted otherwise, equipment which is not free-standing shall not be mounted on wood panels, but shall be attached to concrete or masonry walls, support channels, or building structural steel.

3.7 FIELD QUALITY CONTROL

A. Refer to Contract Documents for additional requirements.

B. Final Observation:
   1. A final inspection of the electrical systems will be required before the Contract can be closed out. Request a final inspection by the Engineer after all systems are fully completed and operational. The Engineer will schedule an observation and generate a list of items to be corrected or completed before Contract Closeout. If the Contractor notifies the Engineer the work is ready for final observation, final evaluation of control systems, or commissioning exercise by the Contractor, and the Engineer finds the work is not complete enough to perform that observation, the Contractor will compensate the Engineer time used. The Contractor will then perform the necessary work to complete the project and again request a Final Observation.

3.8 CLEAN UP

A. Keep the premises free from accumulation of waste material or rubbish, caused by his employees or work, always. Remove rubbish, tools, scaffolding, and surplus materials from and about the building, and leave work areas "broom clean" or its equivalent upon completion of the work. Clean electrical equipment and remove temporary identification. In case of dispute the Owner will remove the rubbish and charge the cost to the Contractor.

B. After tests have been made and accepted clean light fixtures, panels and other equipment installed by the Contractor, leaving the entire work area in a clean and complete working order.

3.9 PROTECTION

A. Cover openings and equipment, where set, to prevent obstruction to conduits, breakage, misuse, or disfigurement of equipment. Cover openings in equipment immediately upon uncrating or receipt at the job site and keep covered until permanent connection is made.

B. Contractor is responsible for any damage to electrical equipment or materials until final acceptance of the entire project by the Owner. Keep all equipment clean materials until final acceptance of the entire project by the Owner.

C. If a portion of the project is to be occupied by the Owner prior to Substantial Completion of the entire project make arrangements with the Owner to transfer responsibilities for protection and housekeeping.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 05 19 - CONDUCTORS AND CABLES

PART 1 -- GENERAL

1.1 SUMMARY

A. Section Includes, but not limited to:
   1. Wire
   2. Multi-conductor Instrument Cable.
   3. Terminals and connectors.
   4. Installation.
   5. Splices, Taps, and Terminations.
   6. Identification.

1.2 REFERENCES

A. Section 26 05 00: Common Work Results for Electrical

1.3 SUBMITTALS

A. Submit shop drawings and descriptive data in accordance with Section 26 05 00.

PART 2 -- PRODUCTS

2.1 WIRE

A. All wire and cable shall be:
   1. New and coiled or on reels.
   2. Each coil and/or reel shall have a label with the manufacturer's name, trade name of wire, size of wire, and UL label.

B. Provide conductors with a 90ºC insulation system, 600-volt rating, U.L. approved and listed for specific application.

C. Feeder and Branch Circuit Wire:
   1. Stranded conductor, unless noted otherwise.
      a. Solid copper conductors shall be used for lighting and convenience receptacle circuits.
   2. THWN insulated for conductor sizes #4 AWG and smaller.
   3. XHHW or THWN insulation for conductor sizes #3 AWG and larger.

D. Provide minimum No. 14 AWG conductor size, unless noted otherwise.
      a. Wiring for power circuits shall not be less than 12AWG in size, unless noted otherwise.
      b. Unless otherwise specified elsewhere in these specifications, control wiring shall be not less than No. 14 AWG.
      c. Control wiring shall be sized such that the voltage drop under in-rush and continuous operation conditions does not adversely affect operation of the controls.

E. All conductors to be copper; aluminum conductors will not be allowed.

2.2 MULTI-CONDUCTOR INSTRUMENT CABLE

A. 2-conductor, 3-conductor, or 4-conductor as required by the process or equipment.

B. Twisted shielded cable, Aluminum foil shield and drain wire.

C. Stranded tinned copper conductors, minimum size of #16 AWG copper.

D. Polyethylene color-coded insulation.

E. Overall PVC or neoprene jacket which is resistant to oil, ozone, moisture, and sunlight.

F. Contractor shall verify cable and signal requirement with equipment manufacturer recommendations. Special instrument and signal cable shall be provided with the equipment which requires them.

2.3 WIRE COLOR CODING

A. Contractor may use color coding at his discretion, except for the following colors, which shall be used only as designated below for both power and control circuits.
   1. Control Circuits
      a. Dark Blue - Direct current circuits.
      b. Light Blue - Intrinsically safe conductors.
      c. Green - Grounding conductor.
      d. White - Neutral conductor.
   2. Power Circuits

	120/240V	208Y/120V	480Y/277V
Phase A	Black	Black	Brown
Phase B	Red	Red	Orange
Phase C		Blue	Yellow
Neutral	White	White	Gray
Ground	Green	Green	Green

   3. Use solid colors through Size No. 8 AWG.
   4. Use black conductors with tape color identification No. 6 AWG and larger.

2.4 TERMINALS AND CONNECTORS

A. Tool compressed terminals and connectors shall be made of 1 piece seamless highly conductive copper with a uniform tin-plate coating to minimize corrosion.

B. Step-down adapters shall be copper compression type.

C. Electrical spring connectors:
   1. Solderless, screw-on, reusable pressure cable type, with integral insulation, approved for application used.
   2. The integral insulator shall have a skirt to completely cover the stripped conductors.

D. Electrical push-in connectors:
   1. Nylon/PC housing material.
   2. Copper contacts with tin plating.
   3. Rated for 221-degree F.
   4. 2,3 or 4 port as needed per circuit. Do not provide unused ports.
   5. Sized per wire gauge.
   6. To be used with wire gauge 12 and smaller.
   7. UL Listed.
   8. Manufacturer:
      a. Ideal
      b. Or pre-approved equal.

E. Fork Terminals:
   1. Vinyl or nylon self-insulated locking type.
   2. Terminal insulation that supports wire insulation.
   3. Manufacturer:
      a. Thomas & Betts Type FL
      b. Burndy Type TP-LF
      c. Panduit Type PNF
      d. 3M Type MNG.

F. Electrical Tape:
   1. UL Listed.

2. Weather resistant.
3. Moisture resistant vinyl.
4. Rated for the voltage system which it is applied.
5. Temperature rating suitable for the application on which it is applied.

G. Motor Connection Kit:
1. UL Listed.
2. Qualified to ANSI standards.
3. Rated to withstand 1000V.
4. For use on in-line or stub motor lead splices.
5. Resistant to abrasion.
6. Installed per manufacturer's recommendations.

H. Underground Splices for No. 10 AWG and Smaller:
1. Solderless, screw-on, reusable pressure cable type, with integral insulation. Listed for wet locations and approved for copper and aluminum conductors.
2. The integral insulator shall have a skirt to completely cover the stripped conductors.
3. The number, size, and combination of conductors used with the connector, as listed on the manufacturer's packaging, shall be strictly followed.

I. Underground Splices for No. 8 AWG and Larger:
1. Mechanical type, of high conductivity and corrosion-resistant material. Listed for wet locations and approved for copper and aluminum conductors.
2. Insulate with materials approved for the particular use, location, voltage, and temperature. The insulation level shall be not less than the insulation level of the conductors being joined.
3. Splice and insulation shall be products of the same manufacturer.

2.5 CONDUCTOR PULLING COMPOUND

A. Rated for use with conductor insulation and conduit material.

B. Non-conductive.

C. Non-cementing.

D. Dry to a fine lubricating powder or a thin film which does not harden in conduit.

E. UL Listed.

F. Rated for repeated exposure to high heat or freezing temperatures.

2.6 CONDUCTOR IDENTIFICATION

A. Imprinted labels
1. UL Listed.
2. Machine typed in blank ink.

B. Label Sleeves
1. Non-burning.
2. Heat-shrinkable.
3. Clear.
4. UL Listed.

C. Self-Laminating
1. Vinyl.
2. Wrap around.
3. Acrylic adhesive.
4. Water and Oil Resistant.
5. UL Listed
6. Machine typed in blank ink.

D. Manufacturers:
   1. Brady
   2. 3M
   3. Raychem TMS
   4. Thomas & Betts E-Z Code

PART 3 -- EXECUTION

3.1 WIRE INSTALLATION

A. Install conductors in accordance with the NEC, as specified, and as shown on the drawings.

B. Install all conductors in a continuous raceway system.

C. Splice conductors only in outlet boxes, junction boxes, pull boxes, manholes, or handholes.

D. Pulling compound shall be approved by the cable manufacturer.

E. Conductors of different voltage systems shall not be installed in the same raceway.

F. Examine all wires before installation. Do not use any wire with insulation that is damaged in any way.

G. Do not pull wire into the conduit until the conduit system is complete. Pull all conductors into the raceway at the same time.

H. Adequate measures shall be employed to determine that the raceways are free of foreign material and moisture before pulling wire or cable.

I. Test all cable and wire for continuity and for shorts prior to energizing any circuits.

J. Conductors shall extend at least 4” past the point of the cover on any junction or pull box installed.

K. For connections to motors, transformers, and vibrating equipment, stranded conductors shall be used only from the last fixed point of connection to the motors, transformers, or vibrating equipment.

L. Conductors shall be without splice from termination to termination, unless indicated otherwise on the Drawings.

M. Provide an equipment grounding conductor with each circuit.

N. The use of a shared neutral on multiwire branch circuits will not be allowed. Each circuit shall be provided with its own neutral conductor(s), unless noted otherwise in the Contract Documents.

O. The contractor shall provide conductors with the appropriate rating and quantity for each circuit.
   1. Voltage Drop Calculations:
      a. Wire shall be sized for a voltage drop no greater than 2% measured for circuits used to feed panelboard, distribution panels, switchboards, and service equipment.
      b. Wire shall be sized for a voltage drop no greater than 3% measured from the feeder panelboard or switchgear to its point of load termination.
      c. Contractor shall provide documentation of voltage drop calculations upon request of Engineer or Owner.
   2. Where multiple conductors are used in a shared raceway, conductor ratings shall be derated per the NEC.
   3. Where conductor sizes are specified in the Contract Documents, these sizes are based on copper conductors.

P. All analog control circuits, i.e. 4-20mA signal circuits, shall be multi-conductor instrument cable.

3.2 SPLICES, TAPS AND TERMINATIONS

A. Splices to feeders and service entrance conductors are not permitted unless specifically noted on the plans.

B. Electrical spring connectors shall be used for splices and taps in lighting and 120-volt receptacle circuits and motor leads #10AWG or smaller.

C. Use pressure or compression type connectors for all splices or taps in copper conductors.

D. Do not splice conductors of dissimilar metals together.

3.3 IDENTIFICATION

A. Control circuits may be color-coded using available colors, except gray and green. They shall be identified at each terminal at the respective control panel with a label. Imprinted labels shall be protected by a heat shrinkable sleeve.

B. Each control circuit shall be identified at both ends with the same number; the wire number shall be the same as the wire number shown on the Contractor's Equipment Drawings. Spare conductors shall also be identified.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 -- GENERAL

1.1 SECTION INCLUDES

A. Grounding Electrode System

B. Equipment grounding

PART 2 -- EQUIPMENT

2.1 GROUND RODS

A. Grounding Electrode System:
   1. Provide ¾" x 10' long solid copper electrodes, where ground rods are specified.

B. Luminaire Bases:
   1. ¾" x 15' long copper weld, unless noted otherwise.

2.2 GROUNDING CONNECTORS

A. Clamps and pressure connectors.
   1. Clamps for connection to piping and conduit:
      a. Approved Manufacturer:
         1) OZ Gedney type ABG
         2) Burndy "Hyground"
         3) Thomas & Betts "Blackburn" Series.
   2. Clamps for connection to enclosures and bus work:
      a. Approved Manufacturer:
         1) OZ Gedney type KGM
         2) Burndy "Hyground"
         3) Thomas & Betts "Blackburn" Series.
   3. Bar taps for connection to bus bars which are UL listed (UL-467).
      a. Approved Manufacturer:
         1) OZ Gedney type KGM
         2) Burndy "Hyground"
         3) Thomas & Betts "Blackburn" Series.

B. Welded connections using non-reversable exothermic process:
   1. Approved Manufacturer:
      a. Cadweld
      b. Thermoweld.

PART 3 -- EXECUTION

3.1 INSTALLATION

A. Raceways provided for grounding electrode conductors shall be rigid nonmetallic.

B. The conductor shall be connected to the equipment ground bus or to the enclosure if there is no ground bus.

C. Separately derived systems shall be grounded in accordance with NFPA 70.

D. The grounding bushings on conduits entering distribution equipment shall be connected to the ground bus in accordance with the requirements of NFPA 70.

E. All conductors used for grounding electrode bonding, equipotential bonding and between wall mounted grounding buses shall be copper.

3.2 GROUNDING ELECTRODE SYSTEM

A. Contractor shall provide a grounding electrode system as required per NFPA 70 in addition to items noted in the Contract Documents.

B. New Construction
   1. Provide a #3/0 concrete-encased electrode installed within the foundation of the building, tied to the steel reinforcing, in accordance with the NEC.
   2. Bond all the following building members (if present) together to form the grounding system for the building:
      a. All metal underground water pipes
      b. Metal frame of the building or structure
      c. Concrete-encased conductor identified in item 1 above.
      d. Other local metal underground systems or structures such as piping systems, underground tanks, and underground metal well casings that are not bonded to metal water piping.

C. Bond the neutral bus to the grounding electrode system at the service entrance switchboard.

3.3 EQUIPMENT GROUND

A. Solidly ground all conduit systems, switch boxes, cabinets, motor frames, switchgear, transformers, and all other permanently installed equipment to form a continuous, permanent, and effective grounding system. Bond expansion joints and metal raceway sections.

B. An equipment grounding conductor shall be installed with each conduit run or cable, includes but not limited to feeder circuits, motor circuits, lighting circuits, and control circuits.

3.4 BONDING

A. Bond all systems per the NEC including raceway, cable tray, enclosures, metal piping systems, structural metal, and other items identified in the Contract Documents or the National Electrical Code.

3.5 SPECIAL REQUIREMENTS

A. The contractor shall determine if there are any other special grounding requirements for equipment furnished on this Project and shall provide grounding as recommended by the manufacturer.

3.6 SPLICES AND TERMINATIONS

A. In general, splices and terminations of the grounding electrode system shall be brazed, shall be exothermic welded, or shall be made with tool-compressed fittings.

B. Connections to bus bars or equipment enclosures shall be made with tool-compressed lugs which are bolted to the equipment or with bar taps.

C. Connections to ground rods shall be exothermic welded. Provide adapter sleeves as required for #6 AWG conductors or smaller.

D. Connections to copper water piping shall be made with ground clamps.

****END OF SECTION****

SECTION 26 05 29 - SUPPORTING DEVICES

PART 1 -- GENERAL

1.1 SECTION SUMMARY

A. Manufactured Supporting Devices.

B. Fabricated Supporting Devices.

C. Installation.

1.2 DESCRIPTION OF WORK

A. Type of support hardware, anchors, sleeves, and seals specified in this section include the following:
   1. Clevis hangers
   2. Riser clamps
   3. C-clamps
   4. One-hole conduit straps
   5. Two-hole conduit straps
   6. Round steel rods
   7. Expansion anchors
   8. Toggle bolts

B. Supports, anchors and sleeves furnished as part of factory-fabricated equipment, are specified as part of equipment assembly in other Division 26 sections.

1.3 QUALITY ASSURANCE

A. Provide supporting devices, of types, sizes, and ratings required that are manufactured by firms regularly engaged in the manufacture of such devices.

B. Comply with NEC as applicable to construction and installation of electrical supporting devices.

C. Comply with applicable requirements of ANSI/NEMA std Pub No. FB 1, "Fittings and Supports for Conduit and Cable Assemblies".

D. Comply with National Electrical Contractors Association's "Standard of Installation" pertaining to anchors, fasteners, hangers, supports and equipment mounting.

E. Provide electrical components which are UL-listed and labeled.

PART 2 -- PRODUCTS

2.1 MANUFACTURED SUPPORTING DEVICES

A. Provide supporting devices; complying with manufacturer's standard materials, design and construction in accordance with published product information, and as required for a complete installation; and as herein specified. Where more than one type of device meets indicated requirements, selection is Installers' option.

B. Structural flat surfaces:
   1. Caddy snap close clamp with z shot-fire bracket; mechanical fastener appropriate for deck type; spring steel, snap close conduit opening, static load of 100lbs or greater;
      a. Conduit Sizes: ½" – 1"
   2. Caddy bolt close clamp with z shot-fire bracket; mechanical fastener appropriate for deck type; spring steel, conduit strap with threaded openings and hex-head bolt, static load of 100lbs or greater;
      a. Conduit Sizes: ½" – 1"
   3. One-hole conduit straps for supporting metal conduit; galvanized steel:
      a. Conduit sizes: ½" & ¾"

4. Two-hole conduit straps for supporting metal conduit; galvanized steel:
   a. Conduit sizes: 1” and larger.

C. Provide anchors of types, sizes and materials indicated; and having the following construction features:
   1. Expansion Anchors: 1/2".
   2. Toggle Bolts: Springhead; 3/16" x 4".

D. Provide sleeves and seals, of types, sizes, and material indicated; having the following construction features:
   1. Provide Schedule 40 galvanized steel pipe sleeves 1 1/2" larger than O.D. of pipe.
   2. Set all sleeves true to line, grade and position and plumb or level after concrete is poured. Correct any deviation from proper position.
   3. Provide minimum of three (3) concrete anchors for Schedule 40 pipe sleeves.
   4. Provide fire barriers around conduit, pipe, tubing, bus ducts and cables passing through smoke and fire rated floors and walls. Provide CP 25, 303 and PSS7904 Series by 3M, or "Flame-Safe" system by Thomas and Betts Corp for fire seals.
   5. Subject to compliance with requirements, provide water-tight seals by Thunderline or pre-approved equal.

E. Provide channel strut system for supporting electrical equipment, 16-gage hot dip galvanized steel, or types and sizes indicated; construct with 9/16" dia. holes, 8"o.c. on top surface, with standard green finish, and with the following fittings which mate and match with channel provided:
   1. Fixture hangers
   2. Channel hangers
   3. End caps
   4. Beam Clamps
   5. Wiring stud
   6. Thin wall conduit clamps
   7. Rigid conduit clamps
   8. Conduit hangers
   9. U-bolts

2.2 FABRICATED SUPPORTING DEVICES:

A. Provide sleeves of one of the following:
   1. Sheet-metal fabricated from galvanized sheet metal; round tube closed with snap lock joint, welded spiral seams, or welded longitudinal joint. Fabricate from the following gages: 3" and smaller, 20 gage; 4" to 6", 16 gage; over 6", 14 gage. Sheet metal sleeves shall not be used for cable.
   2. Steel-Pipe fabricated from Schedule 40 galvanized steel pipe; remove burrs.
   3. Iron-Pipe fabricated from cast-iron or ductile-iron pipe; remove burrs.

B. Provide fire barrier sleeve seals for sleeves located in floor and firewalls. Provide approved fire barrier material.

PART 3 -- EXECUTION

3.1 INSTALLATION OF SUPPORTING DEVICES

A. Install hanger, anchors and sleeves in accordance with manufacturer's written instructions and with recognized industry practices to ensure supporting devices comply with requirements of NECA, NEC and ANSI/NEMA. Extend sleeves 3/4" above floor surface.

B. Coordinate with other electrical work, including raceway and wiring work, as necessary to interface installation of supporting devices with other work.

C. Support surface mounted conduit runs with galvanized pipe straps. Fasten pipe straps to masonry surfaces with self-drilling anchors or toggle bolts. Fasten pipe straps to wood or sheet metal surfaces with pan head sheet metal screws.

D. Provide stainless steel screws where electrical equipment is mounted on or attached to fire treated plywood. Hold equipment away from the plywood with either plastic or stainless-steel washers or spacers.

E. Tighten sleeve seal nuts until sealing grommet have expanded to form water-tight seal.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 05 33 - RACEWAYS, FITTINGS, AND BOXES

PART 1 -- GENERAL

1.1 SUMMARY

A. Section Includes
1. Conduit.
2. Conduit fittings.
3. Conduit accessories
4. Underground warning tape.
5. Pull and junction boxes.
6. Fire stop material.
7. Handholes.
8. Conduit Identification.
9. Execution/Installation.

1.2 REFERENCES

A. Section 26 05 00: Common Work Results for Electrical

B. Section 26 05 26: Grounding and Bonding for Electrical Systems

C. Section 26 05 29: Supporting Devices

D. Section 33 05 05: Trenching and Backfilling.

1.3 SUBMITTALS

A. Submit shop drawings and descriptive data in accordance with Section 26 05 00 in addition to the requirements of this section.

PART 2 -- PRODUCTS

2.1 STEEL RIGID METAL CONDUIT (RMC) AND FITTINGS.

A. Provide hot-dip galvanized or electro-galvanized (inside and outside) conduit having a bichromate finish conforming to UL standard UL-6.

B. Provide zinc coated, threaded type fittings, couplings, and bushings.

2.2 RIGID NON-METALLIC CONDUIT (RNMC) AND FITTINGS.

A. Schedule 40/80 polyvinyl chloride (PVC) rigid plastic conduit conforming to NEMA Specifications TC-2.

B. Provide plastic fittings, couplings, and bushings per manufacturer's recommendations for rigid non-metallic conduit, designed for use with solvent cement.

2.3 HAZARDOUS LOCATION FLEXIBLE CONDUIT/FITTINGS

A. Flexible conduit system comprised of metallic braid.

B. No bonding jumpers required.

C. Manufacturer installed connections/fittings at both ends.

D. Stainless Steel.

E. Rated for Class 1, Division 1 and II, Group D locations.

F. Manufacturer:

1. Crouse-Hinds EC series.

2. Or Equal.

2.4 OUTLET AND JUNCTION BOXES

A. Provide galvanized code gauge metal outlet and junction boxes with screw-on covers of type, shape and size listed for each application.

B. Provide gasketed covers in damp and dusty locations, and where required to meet the listed use (i.e. wet locations).

C. Provide cast metal boxes (FS and FD) for all locations where IMC and RMC are required under Section 26 05 33.

D. Provide 4" square minimum trade size square boxes for all outlet and junction boxes. Provide appropriate mud rings, tile rings or raised covers, depending on the application and allowable installation.

E. Provide 3½" deep boxes when installed in masonry, including precast construction. Provide 2⅛" minimum deep boxes when installed in non-masonry locations. Shallower boxes (1½", 1¼") are allowed only at locations where the wall cavity depth does not permit deeper boxes to be installed concealed within the wall.

F. Provide outlet boxes with green grounding pigtail pre-terminated to the interior of the box, to be used to ground the wiring device(s).

G. Refer to other sections for additional outlet box requirements specific to other systems.

H. Provide boxes with the appropriate size and quantity of conduit knock outs. Knock outs may be pulled or reamed out to larger sizes on most steel boxes.

I. Approved steel box manufacturers:
1. Raco
2. Steel City
3. Pre-approved equal

J. Approved cast metal box manufacturers
1. Appleton
2. Crouse-Hinds
3. Killark
4. Bell
5. Red Dot
6. Pre-approved equal.

2.5 EXPLOSION PROOF BOXES

A. Copper-free aluminum with threaded covers, mounting lugs, and drilled and tapped conduit openings.

B. Dome covers if space required.

C. UL listed for area classification.

D. Approved Manufacturers:
1. Appleton GUB or GUBD
2. Crouse-Hinds GUB,
3. Killark.
4. Approved Equal.

2.6 EXTERIOR IN-GROUND HAND HOLES

A. Precast concrete box and cover or fiber reinforced polyester box and polymer concrete cover.
   1. Covers and boxes design/test load rating (lbs.):
      a. Grass/landscaping areas: 5,000/7,500lbs – ANSI Tier 5
      b. Sidewalks and in areas of vehicle traffic: 22,500/33,750 lbs.– ANSI Tier 22

B. A minimum of 2 stainless steel bolts to secure cover to the box.

C. Sized as Required Per Code:
   1. Minimum Size 13 inches wide, 24 inches long, and 36 inches deep.

D. For fiber optic conduit runs, the word “FIBER” shall be formed on the cover.

E. When mounted in a pavement/paver/concrete surface, provide tinted cover to match the surrounding surface.

F. Approved Manufacturers:
   1. CDR Systems Corp.
   2. Quazite “Composite”
   3. Newbasis.
   4. Approved equal.

2.7 UNDERGROUND WARNING TAPE

A. 6 inches wide, 4-mil polyethylene film.

B. Vivid, opaque, long-lasting red color with bold, black letters.

C. Lettering
   1. Top line – “...CAUTION CAUTION CAUTION...”
   2. Bottom line – “...ELECTRIC LINE BURIED BELOW...”

D. Approved Manufacturers:
   1. Seton Name Plate Corp. No. 210 ELE, EMED Co. Stock No. UT27737-6
   2. Approved Equal.

2.8 FIRE RETARDANT MATERIAL

A. Fire stop foam.

B. Fire stop sealant.

C. 3-hour fire rating.

D. UL Classified per UL-1479.

E. Chase Technology Corp., Dow Corning, General Electric, 3M, or equal.

2.9 DUCT SEALING COMPOUND

A. Soft, fibrous, slightly tacky, non-hardening, and easily applied by hand at all working temperatures.

B. Clean and non-staining.

C. J.M. Clipper Corp. Duxseal, O-Z/Gedney DUX, or equal.

2.10 CONDUIT SEALS

A. Conduit seals shall be provided wherever conduits penetrate exterior concrete walls below grade, or cross hazardous location boundaries.
   1. For conduits less than 60 inches below grade; OZ/Gedney Type FSK, or equal.
   2. For conduits more than 60 inches below grade; OZ/Gedney Type WSK, or equal.

3. For Class 1 Division 1 or Division 2 hazardous location boundaries, conduits shall be sealed at the point where they leave the room. Fittings shall be "EYS," Appleton or Chico "X" Fiberdam and Apelco or Chico "A" compound or approved equal.

2.11 CONDUIT IDENTIFICATION

A. 3/4 Inch By 3-1/2 Inches
   1. Nylon plates.
   2. Marked in black with a marking pen specifically designed for such use.
   3. Manufacturer: Panduit MP350, or equal.

B. 2-3/8 Inches By 4-3/4 Inches
   1. Medium weight shipping tags with reinforced eyelet.
   2. Marked in black with a marking pen specifically designed for such use.
   3. Manufacturer: Dennison Size 5, Grade G, or equal

C. Tag Protection
   1. Adhesive-backed plastic or clear polyester film tape.
   2. Manufacturer: 3M Scotch Brand 3750 Clear Box Sealing Tape, or equal.

PART 3 -- EXECUTION

3.1 CONDUIT SIZES

A. Verify conduit sizes indicated on the Contract Documents prior to installation. Provide proper size conduit based on the NEC maximum fill requirements, including any derating factors. Where conduit sizes are indicated on the plans, it is a minimum size allowed. It is the Contractor's responsibility to provide the proper conduit size, including any grounding conductors and flexible connections to equipment.

B. Where conduit sizes are not shown, provide conduit with the minimum sizes:

   1. 1.25" conduit for underground

   2. 3/4" conduit size everywhere else

C. Spare conduits shall be sized as noted in the Contract Documents. Where spare conduit sizes are not identified provide a minimum size of 1.25".

3.2 INSTALLATION

A. Installation of conduit shall meet the requirements of the NEC and the National Electrical Contractors Association (NECA) conduit installation standards. Where the documents may conflict, the requirements of the NEC take precedence.

B. Install all conductors in a continuous raceway system.

C. Circuits of different voltage systems shall be installed in separate raceways, unless specifically noted otherwise in the Contract Documents.

D. Provide pull and junction boxes as required by the NEC and as site pulling requirements dictate.

E. Conduits entering boxes and equipment from a flat surface shall be provided with an offset 3" from the box to allow the conduit to be fastened securely to the flat surface it is run on.

F. Do not route any conduits across the top of slabs, concrete, or earth.

G. Do not support conduit with wire, nylon ties, nor perforated pipe straps. Remove wire used for temporary support.

H. Run all exposed conduit in a neat, workmanlike manner parallel to the building lines, tight to the wall and ceiling surfaces, and firmly support with conduit clamps or hangers.

I. Do not run conduits in the following:
   1. Columns except feed column mounted devices.
   2. Through structural slabs, beams, or columns, unless approved by the Structural Engineer.
   3. Concrete topping.
   4. Through the same penetrations through floors and walls as mechanical piping unless noted otherwise or if approved by the Engineer.

J. Do not run conduit on or directly in front of access doors, removable panels, equipment removal spaces, control devices or other spaces necessary for normal maintenance and repair of the equipment.

K. Install all exterior underground branch circuit conduits continuously from the source to the load. Do not install in-ground boxes as pull boxes. Oversize the conduits if required.

L. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system. Install exterior underground conduits to drain away from the building.

M. Provide suitable fittings to accommodate expansion, contraction, and deflection where conduits cross seismic, control and expansion joints. Avoid crossing expansion joints where possible.

N. Cap or plug conduit ends during construction. Cap or plug ends of conduit that are to remain empty and make watertight. Clean and swab conduits prior to pulling in conductors.

O. Provide nylon pull string in all empty conduit with a stamped plastic label indicating future use.

P. Aluminum Conduit:
   1. Aluminum conduit shall not be installed in direct contact with concrete. Where installed on concrete surfaces, provide a metal framing channel mounting bracket to secure the aluminum conduit to the surface.
   2. Do not use conduit bushings to secure threaded aluminum RMC to a box or enclosure. Install a locknut between a conduit bushing and the inside of the box or enclosure.

Q. Underground Conduit:
   1. Underground conduit runs shall have a minimum cover of 2 feet.
   2. Conduit shall be sloped to drain to handholes or pull boxes.
   3. Rigid metal conduit shall be used for the vertical elbow and riser out of the ground.
   4. Rigid metal conduit installed underground or passes through concrete shall have a corrosion resistant coating or covering at the points it contacts earth and/or concrete.
   5. Contractor shall do all trenching for underground conduit with a minimum size trench. 3 inches of sand shall be placed below and above buried conduit in trench. All fill material shall be placed in 12-inch lifts and compacted to 90-Percent Standard Proctor Density. Underground warning tape shall be laid in the trench approximately 9 inches below the surface.
   6. The roadway, sidewalk, or grade beneath which conduit is routed shall be restored to its original or better condition.
      a. Provide grading, soil, and seeding or sod to restore turf to original or better conditions.
      b. Coordinate type of soil, seeding and/or sod with Owner to match existing.
   7. Excavating, backfilling, and grading shall comply with Division 31.

R. Conduit installed in slabs shall conform to the following requirements:
   1. Conduit shall not be tied parallel to reinforcement bars.
   2. Conduit must not be tied to each other and shall be spaced a minimum of 1 1/2 inches apart and preferably 3 inches apart.
   3. Whenever possible, conduit should not cross over other conduit. All crossing conduits must be reviewed and approved by the Engineer prior to placement of concrete.
   4. Conduit must not be placed on top of the bottom mat of reinforcement bars. There should be a minimum of 1 inch separation from the bottom of the conduit to the top of the steel bars in the bottom mat of steel.
   5. Prior to placement of the conduit, the contractor must submit an appurtenance embedment drawing that shows the proposed locations of all conduits.

S. Conduit and Penetration Sealing:
   1. Seal all conduits where they pass through exterior walls and where they enter exterior fixtures.
   2. Seal all conduits where temperature differential between adjacent spaces is greater than 30 degrees Fahrenheit.
   3. Seal all conduit penetrations of smoke or fire rated walls or floors with intumescent type fire barriers.

3.3 HAZARDOUS AREAS

A. Install all conduit and raceways located in hazardous areas in accordance with National Electrical Code requirements for that classification of hazardous locations. Provide all fittings and equipment approved by the Underwriter's for this type of location.

B. Where it is necessary to install sealing fittings accessible from rooms or areas which are finished, a flush wall or ceiling outlet box is to be installed and the conduit to be sealed run straight through the box with the sealing fitting occurring within the outlet box. Cover the box with a blank plate.

C. Conduit fittings installed in Class 1, Division 1 and Class 1, Division 2 locations shall be rated for Class 1, Division 1 locations, unless noted otherwise.

D. Boxes installed in Class 1, Division 1 and Class 1, Division 2 locations shall be rated for Class 1, Division 1 locations, unless noted otherwise.

3.4 OUTLET AND JUNCTION BOX INSTALLATION

A. Maintain accessibility to all outlet and junction boxes as required by the NEC.

B. Coordinate the location of all outlets with all drawings before installation.

C. Close openings in all outlet boxes during concrete work with plain paper or slip-on plastic or metal plates.

D. Provide knockout closures to cap used knockout holes.

E. Provide FS and FD boxes in wet, damp, and exterior locations.

F. Maintain vapor barriers around boxes and/or provide suitable boxes listed for use in vapor barriers.

G. Where boxes and concrete are installed in masonry, provide listed equipment or the means acceptable to the AHJ necessary to provide concrete-tight connections and boxes required by the NEC.

3.5 EXTERIOR IN-GROUND HANDHOLES

A. Reference NEC for handhole requirements and installation.

B. All handholes shall have a drain opening in bottom. Excavating handholes shall be dug at least 24 inches deeper than the depth of the bottom of the handhole and the area below the handhole shall be filled with pea gravel.

C. Handhole covers shall be bolted in place when Work is complete.

3.6 CONDUIT BODY INSTALLATION

A. Provide conduit bodies in accessible locations. Provide accessibility to the cover. Coordinate location of conduit bodies with other divisions (trades) prior to installation. Do not locate conduit bodies in exposed finished spaces without the specific approval of the Owner Representative.

3.7 OPENINGS

A. Contractor shall review the size and location of all openings to be sure they meet the requirements of the equipment that is furnished and/or installed as a part of this Contract. The contractor shall be responsible for providing all required openings necessary for a complete installation. All required openings are not shown on the Drawings.

B. All openings shall be filled with an approved sealant, caulking, or grout after the conduit or cable installation is complete.

C. Openings through grating shall have the bars of the grating banded.

D. Provide watertight seal around conduit in openings which are approved by the Owner Representative, for all roof, below grade and exterior wall penetrations.

E. Provide airtight seals for all raceway penetrating air plenums. Repair all damage to insulation and vapor barriers. Seal vapor barriers tight to conduit penetrating vapor barriers.

3.8 IDENTIFICATION

A. Provide panel and circuit number(s) identification on the cover of all junction boxes and pull boxes located in accessible areas (i.e. above accessible ceilings).

B. Provide clear, hand-printed lettering using a black permanent marker.

C. Perform stenciling after the building has been painted so that overspray from building painting does not cover up stenciling performed under this specification section. Re-label any boxes that have been painted over by the painter.

D. Conduit containing control cabling/wiring which utilize Intrinsically Safe methods shall be identified with permanently affixed labels with the wording “Intrinsic Safe Wiring.”

3.9 RACEWAY AND BOXES APPLICATIONS

A. Apply products as specified below, unless otherwise indicated.

B. All conduit may be installed exposed, except were designated to be installed underground.

C. Outdoors (non-corrosive):
   1. Exposed Conduit: RMC.
   2. Underground Conduit: RNMC SCH 40 or 80.
   3. Boxes and enclosures, aboveground: NEMA 4X
   4. Concealed inside exterior masonry wall: RMC.

D. Under interior slabs-on-grade:
   1. RMC, RNMC SCH 40

E. Embedding in precast or poured concrete walls, ceilings, or floors:
   1. RMC, RNMC SCH 40

F. Exposed in lift station wetwell:
   1. RNMC SCH 80.

G. Raceway Fittings: Compatible with raceways and suitable for use and location.
   1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 24 11 - ELECTRICAL SERVICE

PART 1 -- GENERAL

1.1 SECTION SUMMARY

A. Metering Equipment.

B. Installation.

C. Utility Coordination.

1.2 SUBMITTALS

A. In addition to the requirements of this section, submit shop drawings and descriptive data in accordance with Division 1 and Section 26 05 00.

B. Drawings submitted for approval of the service connection and metering cabinet shall include the following information as applicable to each piece of equipment:
   1. Detailed top, front, and end views.
   2. Outline dimensions, including weights.
   3. Isometric or equivalent single line bussing diagram showing sizes, material, plating, and rating of phase, neutral, and ground buses.
   4. Electrical line diagrams and schematics.
   5. Metering and other wiring diagrams.
   6. Component device and material lists.
   7. Nameplate entries and schedules.
   8. Features and accessories furnished to meet Specification requirements.
   9. Cable access and exit areas, termination spaces, pull boxes.

C. Operation and Maintenance Manuals shall be provided for each component. These manuals shall include but shall not be limited to the following:
   1. All shop drawing submittal information updated to show as-built conditions.
   2. Outline dimension prints, including weights.
   3. List of spares recommended for stock.
   4. Description of the operation, proper maintenance, and repair of all components.
   5. Local sources of service and supply.

PART 2 -- EQUIPMENT

2.1 METER SOCKET

A. Power Company approved meter socket.

2.2 EQUIPMENT IDENTIFICATION NAMEPLATES

A. Engraved phenolic, black face with white lettering.

B. Provide plate size as necessary to fit all lettering on it. Equipment of common type or function shall have nameplates of the same size.

PART 3 -- EXECUTION

3.1 SERVICE

A. Verify that the neutral to ground bond is in place at the service entrance equipment prior to energizing.

B. Enclosures shall be secured to equipment pad with stainless steel hardware.

C. Provide the service feeder, wire in conduit, from the transformer or cable termination cabinet to the main distribution switchboard.

3.2 GROUNDING

A. Provide grounding per Section 26 05 26: Grounding and Bonding for Electrical Systems.

3.3 IDENTIFICATION

A. Provide signage as required by the NEC in addition to the requirements of the Contract Documents.

B. Provide identification nameplates as identified in the Contract Documents.
   1. Install nameplate parallel to equipment lines.
   2. Install nameplates outside covers using mechanical rivets or screws.
   3. Nameplates shall be attached in such a manner not to void the equipment's 3rd party testing agency approvals.

3.4 COORDINATION OF WORK WITH THE UTILITY

A. Power company will be responsible for the following:
   1. Furnishing and installing the primary overhead conductors and pole line.
   2. Furnishing and installing the riser pole, primary cutouts, lightning arresters, and grounding.
   3. Furnishing and installing underground primary conduits and cables.
   4. Furnishing and installing transformer.
   5. Termination of underground primary cables at riser pole.
   6. Termination of underground primary cables at the transformer.
   7. Termination of secondary conductors at the transformer.

B. Contractor will be responsible for the following:
   1. Make all arrangements with the power company for obtaining electrical service, obtaining, and completing all forms required by the utility, and furnish all labor and material required for the electrical service which the utility does not provide.
   2. Completing power company load forms, if required by the Utility.
   3. Verifying locations of power company equipment with the power company.
   4. Furnish secondary conduits and cables.
   5. Furnish and install a power company approved metering enclosures.
   6. Terminating all secondary conductors at the service entrance equipment.
   7. Terminating and providing conductors required for the metering cabinet.
   8. Furnish transformer vault and concrete pad.
   9. Installing equipment which is supplied, but not installed, by the power company.

C. The contractor shall coordinate utility requirements with the utility prior to bidding. The contractor shall provide and install equipment which is supplied but not installed by the power company as part of the Contract Document base bid.

D. The cost of the work which the power company provides shall not be included in the Bid Price, unless noted or requested otherwise.

3.5 UTILITY FORMS AND DOCUMENTATION

A. The contractor is responsible for completing and submitting utility load forms.

B. The contractor shall obtain and complete all forms to apply for all applicable equipment rebates available from the power company serving the project.

C. The contractor is responsible for all scheduling and coordination with the Electric Utility. Engineers cannot be held responsible for delays in schedules, providing information, or completing power company forms.

3.6 TESTING AND COMMISSIONING

A. The contractor shall provide trained personnel to inspect all components after installation and shall make all necessary corrections and parameter programming before the equipment is tested.

B. Contractor shall gain approval from the electric utility serving the project prior to energizing equipment.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 24 19 - MOTOR CONTROL

PART 1 -- GENERAL

1.1 SECTION SUMMARY

A. Section includes:
   1. Full-voltage magnetic controllers.
   2. Installation.

1.2 DEFINITIONS

A. CPT: Control power transformer.

B. EMI: Electromagnetic interference.

C. GFCI: Ground fault circuit interrupting.

D. IGBT: Insulated-gate bipolar transistor.

E. LAN: Local area network.

F. LED: Light-emitting diode.

G. MCC: Motor-control center.

H. MCCB: Molded-case circuit breaker.

I. MCP: Motor-circuit protector.

J. NC: Normally closed.

K. NO: Normally open.

L. OCPD: Overcurrent protective device.

M. PCC: Point of common coupling.

N. PID: Control action, proportional plus integral plus derivative.

O. PT: Potential transformer.

P. PWM: Pulse-width modulated.

Q. RFI: Radio-frequency interference.

R. SCR: Silicon-controlled rectifier.

S. TDD: Total demand (harmonic current) distortion.

T. THD(V): Total harmonic voltage demand.

U. SPD: Surge Protection Device

V. VFC: Variable-frequency motor Controller.

W. VFD: Variable-Frequency Drive

1.3 SUBMITTALS

A. In addition to the requirements of this section, submit shop drawings and descriptive data in accordance with Division 1 and Section 26 05 00.

B. Manufacturers Installation Instructions:
   1. Include documents with shipment.

C. Spare Parts:
   1. Provide a list of recommended spare parts with unit prices.

2. Provide with the Operation and Maintenance Manual.

D. Coordination Drawings:
   1. Provide where free standing equipment is to be provided.
   2. Provide floor plans, drawn to scale, showing dimensioned layout, required working clearances, and required area above and around electrical equipment where pipe and ducts are prohibited.
      a. Show layout and relationships between electrical components and adjacent structural and mechanical elements.
      b. Show support locations, type of support, and weight on each support. Indicate field measurements.
   3. Show dimensions of housekeeping pad.

E. Operation and Maintenance Manual:
   1. Shall meet the requirements of Division 1 and Section 26 05 00.
   2. Operating instructions for equipment.
   3. Wiring and installation instructions for equipment.
   4. Settings, adjustments, and calibrations for equipment as required.
   5. Recommended maintenance schedules and procedures for equipment.
   6. Equipment manufacturer's name, address, and telephone number.
   7. Load-Current and Overload-Relay Heater List: Compile after motors have been installed and arrange to demonstrate that selection of heaters suits actual motor nameplate full-load currents.
   8. Load-Current and List of Settings of Adjustable Overload Relays: Compile after motors have been installed and arrange to demonstrate that switch settings for motor running overload protection suit actual motors to be protected.
   9. Sample of special warranty offered by Manufacturer, Supplier or Contractor, if any.

1.4 QUALITY ASSURANCE

A. Source Limitations: Obtain motor controllers of a single type from single source from single manufacturer.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

C. Comply with NFPA 70.

D. Manufacturer of the equipment shall have 2 stocking distributors of spare parts located within the 150 miles of the project site.

1.5 COORDINATION

A. Coordinate features of equipment, and accessory devices with remote pilot devices and control circuits to which they connect.

B. Coordinate features, accessories, and functions of each controller and each installed unit with ratings and characteristics of supply circuits, motors, required control sequences, and duty cycle of motors and loads.

C. The contractor shall verify that the equipment being furnished can be installed in the available space. If available space is not adequate for the proposed equipment, Contractor shall notify the Engineer before releasing the equipment for manufacturing. The contractor shall be responsible for correcting equipment spacing conflicts which were not identified and coordinated with Engineer prior to releasing the equipment for manufacturing.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver equipment in shipping splits of lengths that can be moved past obstructions in delivery paths.

B. If stored in space that is not permanently enclosed and air conditioned, remove loose packing and flammable materials from inside enclosures, and install temporary electric heating, with at least 250W per vertical section or connect factory-installed space heaters to a temporary electrical service as required to protect equipment from freezing and/or condensation.

PART 2 -- PRODUCTS

2.1 MOTOR STARTERS

A. General Characteristics:
1. The starter contactors are manufactured to NEMA standards.
   a. NEMA-sized IEC devices not acceptable.
2. NEMA 1 minimum starter size.
3. Fault current withstand rating equivalent to rating of horizontal main bus.
4. Line plug-in, pull-out, lock-out type.
   a. Provide guides in structure for supporting and aligning starter during removal or replacement.
   b. Tin-plated, pressure-type high strength copper stab assembly for connection to vertical bus.
   c. Lock-out latch to padlock unit in “pull-out” position and isolate entire unit from bus.
5. Coil:
   a. 120 volts, 60 HZ.
   b. Molded construction.
6. Control power transformer mounted in each starter operating at other than 120V single-phase.
   a. Size transformer with an extra 50VA capacity.
   b. Two primary fuses, and a single secondary fuse.
   c. Where the control voltage is used for motor protection circuits, the control power circuit shall be run through an auxiliary contact on the motor’s local disconnect device to discontinue control power when the disconnect switch is in the open position.
7. Lugs between contactor and overload relays for connection of power factor correction capacitors.
8. Auxiliary Contacts:
   a. Minimum of 2 N.O. field convertible auxiliary contacts per starter.
   b. Minimum of 1 N.O. field convertible auxiliary contact per overload relay.
   c. Minimum of 1 N.O. field convertible auxiliary contact per cubicle breaker/disconnect.

B. Overload relays:
1. Solid state with external manual reset.
2. Class protection as recommend by the manufacturer of the motor it is protecting.
3. Self-powered.
4. Minimum of 2:1 adjustment range.
5. Phase loss protection.

C. Combination Full-Voltage Non-Reversing (FVNR) and Reversing (FVR) Magnetic Motor Starters:
1. Full voltage, across the line, electrically held.
2. Comply with NEMA ICS 2, general purpose, Class A.
3. Line-voltage, magnetic starter with overload element and lockable motor circuit protector installed in common plug-in unit for control of induction motors.
4. Motor circuit protector breaker with lockable handle.

D. Disconnecting Means and OCPDs:
1. MCP Disconnecting Means:
   a. UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault currents, instantaneous-only circuit breaker with front-mounted, field-adjustable, short-circuit trip coordinated with motor locked-rotor amperes.
   b. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
   c. Auxiliary contacts "a" and "b" arranged to activate with MCP handle.
   d. Auxiliary contact that operates only when MCP has tripped.

e. Current-limiting module to increase controller short-circuit current (withstand) rating to 100 kA.

2.2 POWER FACTOR CORRECTION CAPACITORS (PFCC'S)

A. Construction
1. Industrial units for installation with appropriate voltage, phase, current and hertz rating.
2. NEMA 1 enclosure.
3. Current limiting fuses.
4. Blown fuse indicating lamps.
5. Internal discharge resistor.
6. Non-PCB materials.
7. External grounding terminal.
8. UL approval (UL-810).
9. Approved Manufacture:
   a. General Electric Type GEM
   b. Eaton Unipak
   c. WEG BCW
   d. Or equal.

B. Sizing
1. Sized to correct motor full load power factor to 93 percent or higher.
2. Shall not exceed the maximum KVAR rating on the motor nameplate.

PART 3 -- EXECUTION

3.1 EXAMINATION

A. Examine areas and surfaces to receive equipment with Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance of the Work.

B. Coordinate layout and installation of equipment with other construction including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

C. Examine enclosures before installation. Reject enclosures which are wet, moisture damaged, or mold damaged.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 GENERAL INSTALLATION REQUIREMENTS

A. Install equipment in accordance with the NEC, as shown on the Contract Documents, and as recommended by the manufacturer.

B. Install fuses if not factory installed.

C. Install equipment in accordance with manufacturer's instructions.

D. Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

E. Set field-adjustable switches, auxiliary relays, time-delay relays, timers, and electronic overload relay pickup and trip ranges.

F. Adjust trip settings of circuit breakers and motor circuit protectors with adjustable instantaneous trip elements. Initially adjust at six times the motor nameplate full-load ampere ratings and attempt to start motors several times, allowing for motor cooldown between starts. If tripping occurs on motor inrush, adjust settings in increments until motors start without tripping. Do not exceed eight times the motor full-load amperes (or 11 times for NEMA Premium Efficiency motors if required). Where these maximum settings do not allow starting of a motor, notify Engineer before increasing settings.

G. Install wiring between equipment and remote devices as specified and as required for the control specified in other sections.

H. Bundle, train, and support wiring in enclosures.

I. Manual motor starters shall be mounted near the equipment they serve where shown on the Drawings.

J. Program equipment for required operational sequences, status indications, alarms, event recording, and display features.

K. After the equipment has been energized, an authorized service person with knowledge of the supplied controller, motor, and project control equipment shall perform the following:
   1. Make all final settings and parameter adjustments.
   2. Adjust controls and signals with coordination of the control system programmer.

3.3 OVERLOAD PROTECTION

A. Before any motor is energized, Contractor shall obtain the nameplate information from the motor supplier. The nameplate current of all motors shall be recorded in the O&M manuals. Where a one-line diagram is provided, record the full load ampere rating in the space under the motor labeled as "FLA_____."

B. Overload relays shall be checked for correct class and setting in accordance with motor manufacturer's recommendations. Class 10 overload relays shall be provided unless the motor manufacturer specifies otherwise.

C. Motor overload settings shall be in accordance with the starter manufacturer's recommendation for the given motor nameplate current, service factor and power factor correction capacitors, if provided. Contractor shall be responsible for all damage that results from improper overload protection.

D. Adjust overload relay heaters or settings if power factor correction capacitors are connected to the load side of the overload relays.

3.4 POWER FACTOR CORRECTION CAPACITORS

A. Provide capacitors for motors when indicated in the Contract Documents.

B. Capacitors shall be connected to the load side of full voltage starters.

C. Provide separate contactors for capacitors associated with solid state reduced voltage starters.

D. Capacitors shall be identified with a laminated plastic nameplate. Nameplate shall identify the motor to which the capacitor is connected.

E. Motor overload heaters shall be sized for the reduced current at the starters because of the capacitors.

3.5 FIELD QUALITY CONTROL

A. Engage a representative or Contractor personnel trained on the provided equipment to inspect, test, and adjust components, assemblies, and equipment installations, including connections.

B. Tests and Inspections:
   1. Inspect controllers, wiring, components, connections, and equipment installation.
   2. Test and adjust controllers, components, and equipment.
   3. Test continuity of each circuit.
   4. Verify that voltages at controller locations are within 10 percent of motor nameplate rated voltages. If outside this range for any motor, notify Construction Manager and Owner before starting the motor(s).
   5. Test each motor for proper phase rotation.
   6. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace them with new units and retest.

7. Test and adjust controls, remote monitoring, and safety features. Replace damaged and malfunctioning controls and equipment.
8. Mark up a set of manufacturer's drawings with all field modifications incorporated during construction and return to manufacturer for inclusion in Record Drawings.

C. Enclosed controllers will be considered defective if they do not pass tests and inspections.

D. Each controller shall be operated at rated load. Duration of the load test shall be as directed by the Engineer or Owner and as determined by the operating conditions of the installation.

E. Each unit with adjustable parameters shall be set to provide sufficient starting torque for the pump/motor to begin rotation when it is called for.

F. Clear events memory after final acceptance testing and prior to Substantial Completion.

G. Prepare test and inspection reports, including a signed report that identifies enclosed controllers and that describes testing results. Include notation of deficiencies detected, remedial action taken and observations after remedial action.

3.6 DEMONSTRATION

A. Upon completion of acceptance checks, settings, and tests, the Contractor shall demonstrate that the equipment is in good operating condition and properly performing the intended function.

3.7 TRAINING

A. Furnish the services of a competent, factory-trained engineer or technician for a 2-hour period, minimum, to instruct Owner personnel in operation and maintenance of the equipment, including review of the operation and maintenance manual, on a date requested by the Owner.

3.8 IDENTIFICATION

A. Identify field-installed conductors, interconnecting wiring, and components.

B. Provide warning signs as required by the NEC and when noted in the specifications.

C. Label each enclosure-mounted control and pilot device.

D. Mark up a set of manufacturer's connection wiring diagrams with field-assigned wiring identifications and return it to manufacturer for inclusion in Record Drawings.

****END OF SECTION****

SECTION 26 27 26 - WIRING DEVICES

PART 1 -- GENERAL

1.1 SECTION INCLUDES

A. Lighting control devices.

B. Convenience receptacles.

C. Wall plates.

1.2 SUBMITTALS

A. In addition to the requirements of this section, submit shop drawings and descriptive data in accordance with Division 1 and Section 26 05 00.

B. Submittals for pre-approval shall be submitted 2 weeks prior to the bid date. Manufacturers of equipment looking for approval shall schedule a demonstration meeting at the Engineer's office to demonstrate the capabilities and quality of the devices. This meeting shall be scheduled 2 weeks prior to the bid date. Manufacturer/Contractor is responsible for scheduling around Engineer's prior engagements.

1.3 QUALITY

A. All wiring devices shall be products of the same manufacturer, unless specifically noted otherwise.

1.4 DEVICE COLORS

A. Areas of New Construction:
   1. Provide gray wiring devices for all devices.

B. Wiring devices mounted on or flush to a finished ceiling shall match the color of the ceiling.

PART 2 -- PRODUCTS

2.1 LIGHTING CONTROL DEVICES

A. Switches:
   1. Heavy-duty, specification grade.
   2. Quiet, toggle type.
   3. Side and back wired.
   4. Rated 20 amperes under all loads, 1 HP at 120 volts, 2 HP at 240 volts.
   5. Single-pole, 2-pole, 3-way and/or 4-way as shown on the Drawings.
   6. Approved Manufacturers:
      a. Cooper.
      b. Hubbell.
      c. Leviton.
      d. Pass & Seymour.
      e. Lutron.

2.2 CONVENIENCE RECEPTACLES

A. Ground Fault Circuit Interrupter Receptacles:
   1. Specification grade, 3-wire grounding type, NEMA 5-20R.
   2. Side wired.
   3. Rated 20 amperes, 125 volts.
   4. In addition to when noted in the Contract Documents, tamper resistant devices shall be provided where required by the NEC and other governing codes.
   5. LED trip indicator.

6. Approved Manufacturers:
    a. Cooper.
    b. Hubbell.
    c. Leviton.
    d. Pass & Seymour.

2.3 COVERPLATES

A. Exterior Coverplates: Provide weatherproof “while in use”, cover plates for outlets and switches as indicated in the Contract Documents.
    1. Provide weatherproof boots for all drop cords as indicated in the Contract Documents.
    2. Weatherproof switch cover plates: Cast aluminum or Lexan with cover and vinyl gasket for weatherproofing switch; or cast aluminum with lever and weatherproof gasket.
    3. Weatherproof receptacle cover plates: Specification grade, weatherproof, cover plate, gasketed corrosion resistant hood/cover rated for extra-duty, for exterior and wet area receptacles.
    4. Coverplates shall be NEMA 3R rated and shall be watertight when in use.
    5. Approved manufacturers:
        a. Red Dot
        b. Leviton
        c. Pass and Seymour
        d. Pre-approved equal

PART 3 -- EXECUTION

3.1 WIRING DEVICES

A. Provide new devices for all outlets indicated. Provide individual GFCI, isolated ground and surge suppression device for each duplex receptacle in ganged outlets.

B. Wire each device by wrapping the conductors around the terminals and torquing the screw terminal tight.

C. Mount all receptacles with the ground pin on the bottom.

D. Replace all receptacles and plates that have been damaged, burned or discolored during construction, prior to Substantial Completion.

E. Test all wiring devices for continuity, proper polarity connections and grounding.

F. Switches and convenience outlets shall be provided where shown on the Drawings.

G. Mounting Heights: dimensions are to the center of the outlet box:
    1. Exterior receptacles shall be mounted at 2 feet above grade level, unless noted otherwise.

H. All receptacle outlets shall be grounded to a separate grounding conductor that has green insulation.

I. All boxes shall be plumb.

J. Where indicated in the Contract Documents as WP, switches and receptacles shall have weatherproof cover plates.

K. All receptacles on a GFCI breaker shall be identified with laminated plastic nameplates which read: “GFCI PROTECTED.” Letters shall be 1/4-inch-high white on a red background. Feed through type GFCI receptacles which feed non-GFCI type receptacles when shown as GFCI type receptacles on the Contract Documents are not allowed, unless noted otherwise.
    1. For double-duplex and other multi-gang receptacles, one of the receptacles is to be a GFCI type receptacle and the remaining receptacles in the shared box may be fed through.

L. Contractor shall be responsible for providing GFCI and Arc fault protection where required per the NEC. Not all instances may be shown on the Contract Drawings. Protection may be provided either via an accessible wall device or a rated breaker at the feeding panelboard. Installation of a blank wall device with protection features to feed devices without the protection features will not be allowed, unless specifically noted in the Contract Documents.

3.2 COVERPLATE IDENTIFICATION

A. Provide ¼" high engraved, black-infilled lettering laser etching engraved cover plates or thermal machine printed labels which are permanently installed.
   1. This requirement is for all receptacle and lighting devices.

B. Provide identification on the plate immediately above the wiring device on the backside of the cover plate, unless noted otherwise.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 28 16 - SAFETY SWITCHES

PART 1 -- GENERAL

1.1 SECTION INCLUDES

A. Safety Switches

B. Installation

1.2 SUBMITTALS

A. In addition to the requirements of this section, submit shop drawings and descriptive data in accordance with Division 1 and Section 26 05 00.
   1. Safety Switch type, size, rating, enclosure type, switches poles, solid poles, HP rating
   2. Fuse size and type (if fused)
   3. Identification tag/nameplate

PART 2 -- PRODUCTS

2.1 SAFETY SWITCHES (DISCONNECT SWITCHES)

A. General requirements
   1. Provide safety switches as disconnects for all utilization equipment as indicated on the Drawings in addition to as required by the governing codes.
   2. Provide lockable handle with multiple hasps to allow proper lockout-tagout procedures.
   3. Provide NEMA 3R enclosures when mounted outside. Provide bolt-on hub kit(s) for conduit connections in order to maintain NEMA 3R rating.
   4. Unless specifically noted otherwise, provide 3-pole with solid neutral bus for landing line and load side neutral conductors.
   5. Provide proper size and quantity of lugs to terminate all phase conductors and neutral conductor. Neutral conductors may require more lugs, and a larger size.
   6. Provide interior ground lug.
   7. Lockable.

B. Fused or unfused switch type:
   1. Provide heavy duty switch with quick-make, quick-break mechanism with positive interlock.
   2. Hinged door with mechanical interlock in the ON position, with defeat mechanism.
   3. Provide horsepower rated disconnects, fully rated for load-break and load-make operation.
   4. Provide service entrance rated switches where required.
   5. Approved manufacturers:
      a. Cutler-Hammer DH series
      b. General Electric TH series
      c. Siemens Type VBII series
      d. Square-D Class 3110 series
      e. Allen Bradley 1494 series
      f. Pre-approved equal.

C. Molded case switch type:
   1. Provide molded case type switch where recessed safety switches are shown. Provide switch in a NEMA 1 with flush mounting enclosure.
   2. Approved manufacturers:
      a. Cutler-Hammer
      b. General Electric
      c. Siemens
      d. Square-D

2.2 ENCLOSED CIRCUIT BREAKERS

A. Units consisting of modled case circuit breakers individually mounted in enclosures.

B. Lockable handle with multiple hasps to allow proper lockout-tagout procedures.

C. NEMA 3R enclosures when mounted outside. Provide bolt-on hub kit(s) for conduit connections to maintain NEMA 3R rating.

D. NEMA 12 or 13 enclosure when mounted inside.

E. Unless specifically noted otherwise, provide 3-pole with solid neutral bus for landing line and load side neutral conductors.

F. Service entrance rated switches when required.
   1. Solidly bonded equipment ground bus with suitable lugs for terminating each equipment grounding and bonding conductor.

G. Provide proper size and quantity of lugs to terminate all phase conductors and neutral conductor. Neutral conductors may require more lugs, and a larger size.

H. Provide interior ground lug.

I. 100-percent rated electronic trip, molded case:
   1. The operating mechanism shall be quick-make, quick-break with provisions for padlocking in the open position.
   2. True RMS sensing.
   3. Adjustable settings for
      a. Long-time pickup.
      b. Long-time delay.
      c. Short-time pickup.
      d. Short -time delay.
      e. Instantaneous pickup.
   4. Interchangeable rating plugs.
   5. Thermal magnetic backup protection.
   6. Long time and ground fault memory.
   7. Trip indicators for overload, short circuit, and ground fault.
   8. Form C contact for remote indication when circuit breaker has tripped or been turned off.

J. Approved Manufacturers:
   1. Cutler-Hammer
   2. General Electric
   3. Siemens
   4. Square D

PART 3 -- EXECUTION

3.1 INSTALLATION

A. Install safety switches with operator handle no higher than 6’-7” above finished floor in front of the safety switch unless otherwise allowed by the NEC.

B. Mount safety switch as close to the equipment as possible. Provide unistrut rack if necessary.

C. Do not mount safety switches on removeable panels on the equipment served. Coordinate location of safety switches with the equipment provider prior to installing the switch.

D. Install safety switches with proper working clearances about the switch.

E. Disconnects for single-phase motors shall be manual motor starters or manual motor starting switches as specified in the Contract Documents.

3.2 IDENTIFICATION

A. Provide an engraved or laminated plastic nameplate on each switch.
   1. Install nameplate parallel to equipment lines.
   2. Install nameplates outside covers in unfinished areas by mechanical rivets.

****END OF SECTION****

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 26 51 00 - LIGHTING

PART 1 -- GENERAL

1.1 SECTION SUMMARY

A. Luminaires.

B. Drivers.

C. Poles.

D. Installation.

1.2 SUBMITTALS

A. In addition to the requirements of this section, submit shop drawings and descriptive data in accordance with Division 1 and Division 26.

B. Submit shop drawings in booklet form with separate sheet for each luminaire assembled in alphabetical order by 'type'. Submit manufacturer's data including dimensioned drawings and photometric data prepared by an independent nationally recognized testing lab.

C. Submit shop drawings for each ballast type and lamp as specified and/or indicated on the drawings.

D. Provide photometric data for each luminaire and a photometric analysis of each space where Contractor proposes using luminaires which is not listed in the Contract Documents or which does not have prior approval. Contractor shall assume full responsibility for scheduling and timing for the analysis. The following information shall be displayed in the analysis and Contractor shall modify the analysis and change data used upon request from Engineer/Owner at no additional cost or project schedule change.
   1. Illumination levels in foot-candles.
   2. Analysis/Calculation grid shall be suitable for the project area to give a realistic feel for the space and shall be readable.
   3. Height of analysis/calculation surface(s) in the model.
   4. Light Loss factor for each luminaire.
   5. Initial delivered lumens for each luminaire and lamp.
   6. Statistics for each space/area: Average, Maximum, Minimum, Max/Min Ratio, Avg/Min Ratio.
   7. Where the measured light levels of the installed luminaires does not meet or exceed the Contractor's photometric analysis, Contractor shall replace luminaires with the specified luminaires or other approved luminaire which meets the proposed light levels.

E. Samples:
   1. Contractor shall upon written request by the consultant, provide samples of any custom made components suitable for evaluation.
   2. Contractor shall upon written request by the consultant, provide samples of standard system components or software suitable for evaluation.
   3. Samples submitted in accordance with this section will be returned to the contractor following evaluation.

PART 2 -- PRODUCTS

2.1 GENERAL REQUIREMENTS FOR LUMINAIRES

A. Provide luminaires with lamps, for each outlet specified in the Contract Documents.

B. Provide U.L. approved luminaires.

C. The luminaire types required are as noted by a capital letter(s) and number(s) on the Drawings. Contractor is solely responsible for the exact quantities. Luminaire shapes shown on the Contract Documents do not necessarily equate to an exact length or quantity of luminaire; rather, the luminaire designation shown on the plans refer to the type of luminaire. It is the Contractors responsibility to provide the proper length and switching configuration in each space.

D. Provide disconnects at each luminaire as required by the NEC.

2.2 DRIVERS

A. LED Drivers:
1. UL Class 2 power unit as per UL1310. It is also listed in the UL Sign Accessory Manual (UL SAM).
2. Class A sound rating.
3. Minimum operating ambient temperature of -40 degrees C.
4. Life expectancy of 50,000 hours or greater at an average ambient temperature of ≤ 40 degrees C with use of the luminaire it is supplied with.
5. Self-rise of 25 degrees C at maximum load in open air without heat sink.
6. Certified by UL for use in a dry or damp location (Outdoor Type I).
7. Tolerates sustained open circuit and short circuit output conditions without damage.
8. Allowable case temperature up to 85 degrees C.
9. Reduce output power to LEDs if maximum allowable case temperature is exceeded.
10. Driver complies with governing FCC rules and regulations.
11. Tolerate sustained open circuit and short circuit output conditions without damage and need of external fusing or trip devices.
12. Dimmable, controlled by 0-10V low voltage controller or other means compatible with lighting system controls.
13. Manufacturer shall have a 5 year history of producing LED lighting drivers for the North American market.

2.3 POLE MOUNTED LUMINAIRES

A. Luminaire:

1. 4000K color temperature.

2. Type IV optics with backlight control.

3. 9,000 to 15,000 accepted output lumens.

4. Integral daylight sensor.

5. Integral motion sensor to dim light to 50% when no motion is detected.

6. Manufacturer:

   a. Lithonia D-series LED

   b. Or equal

B. For outdoor pole mount luminaire:

1. Pole height as required to mount luminaire and SCADA antenna a minimum of 20’-0” above finished grade. Pole shall be round, tapered, direct burial, fiberglass.

2. Paint which matches the luminaire.

3. Handhole with gasketed cover.

C. All pole installations shall be capable of withstanding the forces produced by 90-mph winds with a 1.3-gust factor and the total number of luminaires and additional equipment required per pole.

D. Low voltage wiring will not be allowed to share the same raceway space as power wiring. Poles shall be provided with provisions to separate the Class 1, 2, and 3 low voltage wiring from the power wiring inside the pole. Contractor shall coordinate cabling requirements with all trades and suppliers.

2.4 EXTERIOR MOTION RESPONSE

A. Where indicated in the Contract Documents exterior luminaires are to be provided with an integral motion sensor. Motion sensor shall detect motion 180° on the front side of the fixture.

B. Sensor shall detect motion at a total distance of twice the height of which the fixture is mounted. Example: A sensor provided on a fixture mounted at 20’ shall cover an area 40’ wide.

C. Motion detector shall be wired directly to the luminaire driver to provide the specified control.

D. Sensor shall be low profile.

PART 3 -- EXECUTION

3.1 INSTALLATION

A. Pole erection and mounting shall be done according to pole manufacturer's recommendations.

B. A concrete base shall be provided for each outdoor luminaire, unless noted otherwise. Base types shall be provided as detailed on the Drawings.

3.2 WIRING

A. Provide grounding type connectors for all conduit and cable.

B. Provide an insulated grounding conductor with each lighting circuit.

3.3 QUALITY CONTROL

A. At the time of substantial completion, all luminaires must be installed and lamped with new lamps. Install all luminaires complete with lenses, diffusers, reflectors, louvers and other required accessories. Furnish a minimum of one case of replacement lamps for each type and size lamp used. Deliver replacement stock to the Owner’s storage space as directed by the Owner.

B. Lenses, refractors, and glassware shall be clean and free from cracks or chips. All reflectors, shades, luminaire bodies, etc. shall be free from dents and scratches. Replace any damaged reflectors, diffusers, louvers or other components at no expense to the Owner.

C. Clean all luminaires free of dust, finger prints, paint, etc.. All exposed tags and labels other than UL and emergency ballast identifiers shall be removed.

D. Perform aiming and adjustment of all lighting luminaires in accordance with instructions issued by the Engineer. Adjust all directional type luminaires (interior and exterior) after dark under the direction of the Engineer, and/or Owner.

E. Replace all defective ballasts within the guarantee period at no cost to the Owner.

3.4 LIGHTING REBATE PROGRAM

A. Apply the Utility energy lighting rebate to this project. Secure on behalf of the Owner the maximum rebate. Include all negotiations and substantiation required.

3.5 IDENTIFICATION

A. Lighting control components shall be identified by laminated plastic nameplates with 1/4-inch white lettering on a black background. Identify each lighting contactor based on the loads served. In addition, identify the lighting control panels as such.

B. Each exterior LED luminaire shall be provided with an adhesive label on the outside of the housing but concealed from normal view, such as on the top side of a pole mounted fixture, ceiling, or on the driver housing.
   1. Pole Mounted Fixtures: Provide the label on the inside of the pole handhole cover.
   2. Label shall identify the following items:
      a. Date of install
      b. Rated Lumen output
      c. Rated Color Temperature
      d. Rated input wattage
      e. Distribution package type (example; Distribituion Type: IV)

****END OF SECTION****

SECTION 26 90 01 - MEASURING AND CONTROL INSTRUMENTS

PART 1 -- GENERAL

1.1 SECTION INCLUDES

A. Lift station radar level transducer

B. Float level switch

1.2 RELATED SECTIONS

A. Section 26 05 00 - Common Work Results for Electrical.

1.3 SUBMITTALS

A. Refer to Section 26 05 00 - Common Work Results for Electrical.

PART 2 -- PRODUCTS

2.1 **RADAR LEVEL TRANSDUCER**

A. Hermetically sealed wiring and fully potted electronics

B. Capable of submergence without degradation.

C. Operating Temperature Range: - 40 to 170 degrees F.

D. Accuracy up to 0.1inch.

E. Rated for use in wet location.

F. Loop powered, 4-20mA input/output directly connected to PLC input. No external power source or digital display on unit.

G. Manufacturer mounting hardware suitable for location.

1. Provide a pivoting stainless-steel bracket and all stainless-steel mounting hardware for this purpose, allowing the unit to be removed for service without the use of tools or special equipment. Confirm mounting bracket with Engineer. Coordinate bracket location to allow for an unimpeded signal reflection from the transducer.

H. FM listed for use in a Class 1, Division 1, Group D hazardous location.

I. Manufacturer:

1. Endress+Hauser
2. Vega
3. Siemens
4. Pre-approved Equal

2.2 FLOAT LEVEL SWITCH

A. Impact/corrosion resistant ABS float body.

B. Non-Mercury mechanical switch rated 13.0 amp. at 120/240 Vac.

C. Foam-filled body.

D. Heavy duty, Type SJOW #16/2 cord. Cable long enough to reach control panel without a splice.

E. Completely potted switch-to-cable-to-body connection.

F. Stainless steel cable and 15-lb. plastisol-coated cast iron weight for mounting float switches.

G. Stainless steel fasteners with rubber sleeves for attaching floats to the stainless-steel cable.

H. Manufacturer:

1. Anchor Scientific Eco-Float

2. Or Equal

PART 3 -- EXECUTION

3.1 COMMISSIONING

A. Contractor shall change relay connections, position limit switches, and make all other adjustments required to obtain the proper operation of the equipment.

B. Contractor shall demonstrate to the Owner and the Engineer that all control systems operate as specified.

3.2 TESTING AND COMMISSIONING

A. Contractor shall check, test, calibrate, and put into operation all control systems specified herein and shall demonstrate their operation to the Engineer.

B. All changes shall be recorded and all control schematic and wiring diagrams shall be revised and re-issued with the changes.

3.3 IDENTIFICATION

A. All devices shall be identified with a laminated plastic nameplate which has white lettering of not less than 3/16 inch on a black background. Nameplates shall be attached with screws.

****END OF SECTION****

SECTION 26 90 04 - LIFT STATION CONTROL SYSTEM

PART 1 -- GENERAL

1.1 SECTION INCLUDES

A. Quality assurance/control system supplier.

B. Control description.

C. Control panel.

D. Spare parts.

E. Installation.

1.2 RELATED SECTIONS

A. Section 26 05 00 – Common Work Results for Electrical

1.3 SUBMITTALS

A. In addition to the requirements of this section, submit shop drawings and descriptive data in accordance with Division 1 and Section 26 05 00.

B. Drawings submitted for approval of control system equipment shall include the following information as applicable to each piece of equipment:

1. Detailed top, front, and end views.
2. Outline dimensions, including weights.
3. Control panel elevation drawings showing all components, both outdoor door and interior.
4. Control panel and starter electrical line diagrams and schematics.
5. Component device and material lists.
6. Cutsheets for each accessory.
7. Nameplate entries and schedules.
8. Features and accessories furnished to meet Specification requirements.
9. Cable access and exit areas, termination spaces, terminals and wire ways.
10. Operator interface screens shall be submitted and reviewed with the Owner prior to the completion of the PLC and operator interface programming.

C. Operating and Maintenance Manuals

1. Provide Operating and Maintenance Manuals in a pdf format, compiled into a single pdf utilizing an interactive table of contents (TOC) with bookmarks and/or links to identify each component in the pdf and to take the reader directly to that page from the TOC.
2. All information contained in shop drawings.
3. List of spares provided.
4. List of spares recommended for stock.
5. Description of the operation, proper maintenance, and repair of all components.
6. Local sources of service and supply.
7. As built drawings.

8. Manufacturer's operation and maintenance manuals.
9. Provide complete electronic copies of PLC, operator interface, and SCADA PC programs on USB drive.
    a. USB drive shall be labeled to identify the equipment of which programs it contains.
    b. 1 copy of the programming shall be provided in PDF format
    c. 1 copy shall be provided in the PLC program's original format.
    d. Contractor shall demonstrate to the Owner and Engineer that these drives contain all required documentation by opening up the drives on the Owner's computer and displaying the information to the satisfaction of the Owner and Engineer.

1.4 CONTROL SYSTEM INTEGRATOR

A. Base Bid Control System Integrator shall be as follows:
    1. Quality Control & Integration, INC – New Prague, MN

B. Scope of Work:
    1. Control system integrator is responsible for providing all control hardware, PLC's, graphical interfaces, measuring devices and instrumentation, control panels, computer hardware, programing, calibration, testing and all other work needed for a fully operating control system.

C. Certifications:
    1. All panels provided under this Section shall meet the requirements of UL-508 & UL-508A. The supervisory control system supplier shall maintain in-house UL-508 and UL-508A shop procedures for both open and enclosed Industrial Control Panels.
    2. Control panels with intrinsically safe circuit extensions shall meet the requirements of UL-698A and shall be labeled as such, thereby certifying that the panel satisfies the UL requirements for an enclosed industrial control panel relating to hazardous locations with intrinsically safe circuit extensions.
    3. All panels shall be provided with a label to identify the Short Circuit Current Rating (SCCR) given to the control panel assembly. Where the available short circuit rating or interrupting capacity is not identified in the contract documents, Contractor is responsible for coordinating with the electrical utility and for calculating these values. Panels which do not have an SCCR label or are provided with an inadequate SCCR value shall be replaced or corrected by the manufacturer. Corrective measures and work shall be covered by the Contractor at no additional cost to Owner. Nor will an extension to the project schedule be given for the corrective measures to be made.
    4. All panels shall be UL labeled or third party certified in accordance with the governing state electrical code requirements.
    5. All panels shall be labeled when delivered to the Site. All field modifications shall be in conformance with UL. When the Owner accepts the panels, the Contractor certifies that the panels have retained their UL labeling or other third-party certification accepted by the AHJ.

D. Experience:
    1. The control system integrator shall for a minimum of 10 years, have been in business under their present name designing and implementing municipal water and wastewater system controls of equal or greater size in the State the project site is located. Experience of companies purchased may be included as relevant experience as long as the purchased company's experience relates directly to this type and size of project. Relevant projects must include:
        a. Lift station control systems.

b. SCADA telemetry systems.

c. SCADA PC and HMI software implementation and programming.

d. PLC and operator interfaces software implementation and programming.

E. Maintenance and Service

1. The control system integrator shall have programmers, designers, and field service personnel who are permanent, full-time employees. The field service personnel shall be available 24 hours each day to assist the Owner with onsite issues.

2. Service representative shall maintain an inventory of all control components and shall be equipped with all tools required to repair the control panel.

3. Service representative shall respond promptly to a request for service.

4. Control panel manufacturer shall be located within a 100-mile radius of the project site.

F. Liability & Insurance:

1. Unless stated otherwise, the control system supplier shall carry a minimum of $5,000,000 in both product liability and errors and omissions insurance.

1.5 LIFT STATION CONTROL DESCRIPTION

A. Provide an outdoor control panel at the lift station site to control the operation of the submersible pumps and to communicate to the Owner's existing SCADA system.

B. A Hand-Off-Auto control mode selector switch is to be provided on the control panel door for each pump.

1. Hand: the associated pump shall run regardless of if the control system is operational. Alarms, except motor overload or any other alarm that would void the pump manufacturer's warranty, shall not shut the pump down.

2. Off: the associated pump shall not be called to run.

3. Auto: the control panel shall run the pumps dependent on the liquid level of the wet well.

4. The hand and auto position of the selector switch shall be monitored by the PLC and the switch position to be displayed on the SCADA system screens.

5. An alarm shall be generated over the SCADA system if the switch is left in the Hand or Off position for an operator adjustable amount of time.

C. A simulated Hand-Off-Auto selector switch shall be provided for each pump at the SCADA interface screens. The switch shall offer the following functions:

1. Hand – The PLC shall require the associated pump to operate.

2. Off – The PLC will not require the associated pump to operate.

3. Auto – The PLC shall operate the associated pump as described in this section.

D. AUTO (PLC) control mode:

1. The PLC pump control shall operate the 2 pumps based on the liquid level in the wet well.

2. On a rising level, the lead pump shall be started followed by the lag pump. Operating pumps shall be stopped at separate low levels. A level transducer and programmable logic controller (PLC) shall provide normal control.

a. Pumps shall automatically alternate lead duty every cycle. Operator shall be able to select manual alternation via the SCADA interfaces.

1) If a required motor fails to start, an alarm shall be generated and the next motor in the sequence shall take over the lead pump position.
2) A notification on the local interface display shall indicate each motor's position in the alternation sequence.

b. An adjustable 0 to 3-minute timer at the PLC shall delay the starting of the lag pump.

3. Pump starting/stopping shall be as follows:

a. The level control mentioned below shall be as sensed by the level transducer.

b. When the wet well level is below an operator adjustable Lead Pump Start elevation, all pumps shall be off.

c. When the wet well level rises above the Lead Pump Start elevation for a preset time, the lead pump shall start.

d. If the wet well level rises to an operator adjustable Lag Pump Start setpoint elevation for an operator adjustable time period, the lag pump shall be started. At this time, both pumps are to be operating.

e. When the wetwell falls below an operator adjustable All Pumps Off level setpoint, the lead and lag pump operation shall be discontinued. Discontinuation of the pumps' operation shall be staggered by an operator adjustable time delay.

4. A restart delay relay shall prevent the pumps from starting for an adjustable time delay of 0 to 3 minutes after it has stopped. The Restart Delay countdown shall be displayed on the operator interface screen during the restart delay period.

a. The restart delay timer setpoints shall be operator adjustable via the operator interface.

E. Two float backup control mode (While in control mode selector switch is AUTO position):

1. Backup control shall be provided by 2 floats. Control relays and timers are to be provided for the backup control and shall be independent of the transducer and PLC controller.

2. High Level Float: If the wetwell level rises to an elevation which activates the High-Level Float for an adjustable amount of time, the control system shall go into a Backup Control Mode. The High Level Alarm float shall initiate a High Wetwell Alarm which shall be signaled over the SCADA system, and start the lead pump.

a. The lead pump shall be required to operate for a preset amount of time. This preset amount of time is to be physically tested and set to allow a pump to reduce the water level to a low level in the wetwell but not low enough to activate the low-level float level.

b. A preset amount of time shall be programed to allow the lead pump to operate and pump the wetwell level down below the high-level float. If the high-level float is still activated after this time delay, the lag pump shall also be started. A new preset timer shall begin a countdown to allow both pumps to pump down the wetwell level. This preset amount of time is to be physically tested and set to allow a pump to reduce the water level to a low level in the wetwell but not low enough to activate the low-level float level.

3. Low Level Float: If the wetwell level drops below the Low-Level Float the control system shall discontinue the required signal to the operating pumps and the control system, and shall go into the Backup Control Mode if not already in this mode.

4. Pump starting sequence during the backup control mode shall be fixed (1 to 2).

5. When backup control mode is active, an alarm indicator light on the control panel door shall illuminate and alarm shall be indicated on the SCADA system screens. Operator may transfer control back to PLC control by utilizing a simulated pushbutton on the OIT screen or utilizing an alarm acknowledge pushbutton at the control panel door.

6. When in float backup mode, the control system shall not signal a high- or low-level alarm when the floats are activated. The low- and high-level alarms shall be signaled when the system is under PLC and transducer control.

    a. The exception to this, is if the high wetwell float remains activated for a preset amount of time after both pumps are called to operate while backup mode is activated, the control system shall signal a backup mode high level alarm.

7. A relay shall be provided for monitoring PLC fault. PLC shall keep the relay open, upon failure of PLC to maintain the relay position, the relay shall close, an alarm shall be indicated on the SCADA system, and the float backup control mode shall be activated.

F. Level measurement:

1. A radar level transducer is to be mounted in the wetwell.

    a. The transducer shall create a 4-20mA signal proportional to the wetwell level and shall be monitored by the lift station PLC.

    b. The wetwell level is to be displayed and trended on the SCADA system interfaces and used for control as described above.

    c. Operator is to utilize the SCADA interface screens to enter a High and Low Wetwell Alarm level setpoints. Upon the measured wetwell level rising or falling to the associated level for an operator adjustable amount of time, the SCADA system shall signal the appropriate alarm.

G. Pump Run Monitoring:

1. The control system shall monitor motor controller auxiliary contacts or outputs for indication of run status and for run time accumulation.

2. A digital accumulated run time shall be provided for each pump and displayed and trended on the SCADA screens. PLC shall track run anytime the pump is running.

    a. Provide a reset button on the SCADA system to allow the operator to reset a pump's run time meter. A confirm message must appear to verify the Operator wants to reset the total and the button was not hit in error.

    b. Provide a run time on the SCADA screens to show time when both pumps are running simultaneously. This shall also be trended.

3. Run time meters shall be provided on the control panel door to indicate the totalized run time. Run time meters shall track operation anytime the pump is running, whether in backup, hand and/or PLC control.

4. When a pump is running, an associated green pump running pilot light shall illuminate on the control panel door.

H. Pump fail monitoring:

1. The PLC system shall monitor motor controller auxiliary contacts or outputs for indication of fail status. Upon activation of such signal, the SCADA system and pilot lights shall indicate a pump fail alarm.

2. If a pump is required to run, and a run signal is not received by the PLC after an adjustable time delay expires, the SCADA system and pilot lights shall indicate a pump fail alarm.

3. An associated pump failure red pilot light shall illuminate on the control panel inner door.

4. Pump protection signals:

    a. Temperature sensors supplied with the pump shall initiate a pump fail alarm and stop the pump upon an over temperature condition. Pump shall be locked out until manually reset. Temperature monitoring units shall be furnished by the pump supplier for installation in the lift station control panel.

    b. Seal chamber moisture sensors supplied with the pump shall initiate a pump fail alarm upon detection of moisture in the seal chamber. Moisture monitoring units shall be furnished by the pump supplier for installation in the lift station control panel. A moisture alarm bypass switch shall be provided inside the control panel's inner door to allow disconnecting the moisture alarm from any alarm horn, exterior alarm light, and telemetry, if provided. Provide an auxiliary contact on the associated pump circuit breaker (and slave relays as required) to disconnect the moisture sensor circuitry when the circuit breaker is in the off position.

    c. Provide an auxiliary contact on the associated pump circuit breaker (and slave relays as required) to disconnect the pump protection signals circuitry when the circuit breaker is in the off position.

    d. SCADA system shall signal an alarm upon activation of the pump protection signals. Upon activation a pilot light on the control panel inner door shall illuminate. Pilot light colors as follows:
        1) Pump Temperature Alarm – RED
        2) Pump Seal Alarm - Amber

I. Power monitoring:

1. Service phase monitor:

    a. A phase monitor shall be provided in the control panel to monitor each incoming service phase. If a phase would loose power, the monitor shall signal an alarm to the PLC and a utility power failure alarm shall be generated over the SCADA system. All operating equipment shall cease operation until power is restored, either generator or utility.

2. Utility surge protection device (SPD):

    a. An SPD shall be connected to the utility incoming lines to protect the downstream from surges which may present on the incoming utility.

    b. The control system shall monitor a common alarm contact at the SPD. Upon activation of the contact, the alarm shall be displayed on the SCADA screens.

    c. The control system shall monitor a surge counter contact at the SPD. SCADA system shall display the number of surges the SPD has protected against.

3. Control Panel Power:

    a. A control relay shall be provided ahead of the control power UPS. PLC shall monitor a NO contact from this relay to indicate 120V control power OK. If this relay changes state, SCADA system shall indicate an alarm.

    b. A control relay shall be provided downstream of the 24VDC power supply. PLC shall monitor a NO contact from this relay to indicate 24VDC control power OK. If this relay changes state, SCADA system shall indicate an alarm.

4. Uninterruptible Power Supply (UPS):

    a. A UPS shall be provided to provide back-up power to the control circuit.

    b. A relay shall be provided ahead of the UPS to indicate control power failure.

c. A UPS bypass circuit shall be provided via relay logic to switch the control circuit to be powered by the normal (non-UPS) power circuit upon a UPS fault. PLC shall monitor a contact for this circuit for identification of bypass status.

d. PLC shall monitor an alarm relay downstream of the UPS.

e. SCADA system shall signal an alarm upon activation of the above signals.

J. Existing Pad Mounted Generator:

1. An existing fixed generator is in use at this site. The SCADA system shall have the means to monitor and display the following status signals once the generator is installed:

a. Generator Ready

b. Generator Running

c. Generator Common Alarm

d. Generator 25% fuel fill level

e. Generator 50% fuel fill level

f. Generator 75% fuel fill level

g. Generator 100 fuel fill level

h. Low Fuel Pressure Alarm

2. If the generator fails to produce the generator ready signal or if a generator common alarm signal is produced or generator 25% fuel fill level/low fuel pressure signal is produced, the SCADA system shall signal a generator alarm.

3. Programming via the SCADA system shall allow operator to remotely start and stop the generator system using the SCADA interfaces.

a. Programming via the SCADA system shall allow the operator to set a reoccurring schedule for automatic generator operation. Operator may use the SCADA system to set the times, day and duration the generator shall run for testing and operation purposes.

K. Automatic Transfer Switch:

1. The PLC shall monitor the following status indicators at the automatic transfer switch.

a. ATS in Normal/Utility Position

b. ATS in Generator Position

c. ATS Normal Power Available

d. ATS Generator Power Available

2. PLC shall monitor the automatic transfer switch positions and status contacts for normal power available and generator power available. These points shall be displayed on the SCADA system.

3. SCADA system shall generate an alarm if the normal power is not available.

L. Alarm Handling:

1. Appropriate lights shall illuminate on the control panel.

2. Refer to Owner's control system programmer for operational description of alarming procedures and notifications.

M. Alarms:

1. Appropriate lights shall illuminate on the control panel.

2. Alarm shall be signaled on the SCADA screens with a flashing text displaying the date/time and description of the alarm.

3. All alarms shall be logged with date/time and description of alarm.

4. Operator may silence an alarm by utilizing the SCADA system. Once silenced, the alarm will stop flashing on the displays, but the alarm shall remain displayed until the operator disables the alarm via the SCADA system, or the alarm condition has been cleared.

5. Operator may utilize the SCADA PC HMI software to enable or disable any alarm. In addition, the operator may choose to have any alarm enabled or disabled for the alarm dialing software. If an alarm is enabled in the SCADA system, operator may choose to disable it from being signaled out via the alarm dialing software and alarm dialer.

6. SCADA system shall log the time and who acknowledges an alarm, enables an alarm or disables an alarm.

7. The SCADA PC alarm dialing software shall send notifications of an alarm condition. Notification shall be by text message, email, and voice notification via a telephone call. Operator shall be able to enable or disable the remote notification for every alarm in the SCADA system.

8. Refer to Owner's control system programmer for operational description of alarming procedures and notifications.

N. Telemetry:

1. A watchdog loop shall be provided and signal a communication failure via the SCADA system if it or another PLC fails.

2. A radio is to be provided at the control panel to provide communications to the Owner's existing SCADA system. The radio from the existing control panel can be relocated to the new control panel.

3. The existing SCADA antenna can be reused. Provide new coax cabling from the control panel radio to the antenna.

4. Provide programming at all sites as needed to incorporate the control system in the existing SCADA system.

O. General Requirements

1. Restart After Power Failure:

a. After a power failure, the SCADA system shall automatically restart equipment in a timed sequence.

2. The control system shall be fully operational in manual modes with the PLC system off-line.

3. The SCADA control system shall be fully operational with the SCADA PC offline.

4. Run times, analytical instruments, levels, equipment run/fail indication, etc. shall be monitored/accumulated/displayed.

5. All variables, such as starting sequence, on/off/alarm set points, time delays, etc., shall be operator adjustable via the SCADA interfaces.

6. Timers described throughout this Specification Section shall be timers in the various PLCs, unless noted otherwise.

PART 2 -- PRODUCTS

2.1 LIFT STATION OUTDOOR CONTROL PANEL

A. All control enclosures to be Arc Flash Rated to reduce the potential of incident energy.

B. Free standing mounted on a concrete pad, low profile, rainproof, Type 4X.

C. UL-508, UL-698A rating.

D. Stainless steel door-in-door construction. Interior white.

E. Panel(s) mounted on 18-inch-tall floor stands. Louvered skirt to cover space between floor stands. Material and finish to match the panel. Provide a screen on interior side of skirt to prevent rodents, birds, bugs and other wildlife from entering the louvers. An air-tight sealed barrier shall be provided in the skirted area to separate conduits from the wetwell and non-wetwell.

F. Maximum overall height with floor stands is 60 inches. Enclosure width shall be as required.

G. Exterior gasketed doors with continuous hinge and 3-point handle-operated latching system. Handle with provisions for padlocking; tumbler type lock is not acceptable.

H. Internal doors painted white with continuous hinge and quarter-turn latches.

I. Removable back panel, painted white and mounted on studs secured to the back of the enclosure. All devices mounted in the panel shall be mounted to this back panel with the use of DIN rail. Devices shall be removable without the need to remove screws and bolts.

J. Control devices and indicating lights mounted on interior doors.

K. Circuit breaker operating handles and VFD keypads accessible with interior doors closed.

L. All control relays, timers, pushbuttons, selector switches, PLC's, power supplies and other devices shall be provided in the control panel to meet the intent of the Contract Documents.

M. Internal heaters with adjustable thermostat control to prevent condensation and freezing. Heaters shall be sized as required to maintain temperature required for proper operation of all components inside the panel.

N. Panel Ventilation/Cooling: ventilation and/or cooling shall be per manufacturer to maintain proper operating temperature for the components in the control panel.

    1. Ventilation – As recommended by Control Panel Supplier

        a. Thermostatically controlled vent fan and fixed intake/discharge louvers.

        b. Air filters, filter retainer, filter sealing gasket and finger guard.

        c. Stainless steel shroud kits with finish to match panel.

    2. Air Conditioning – As recommended by Control Panel Supplier

        a. Closed loop air conditioner with removable filter and integral thermostat.

        b. UL Listed for outdoor use.

        c. Mount on the side of control panel.

        d. Size: Air conditioner shall maintain an ambient temperature inside of the enclosure of at least 10 degrees F less than the maximum operating temperature of all devices in the control panel.

    3. Design shall be for the following environment extremes:

        a. Summer: Direct sunlight exposure on the cabinet with an outdoor air temperature of 105 degrees F and all components, drives and devices operating at 100% capacity.

        b. Winter: Outside ambient temperature as low as -60 degree F in darkness.

O. Control panels shall be provided with a control circuit surge arrestor, power supplies, and UPS.

P. Each control panel shall include a means for the PLC to monitor a power failure condition on the line side of the UPS.

Q. All input and output circuits which tie to field terminals shall be individually fused. Additionally, each analog circuit shall include individual transient voltage surge protections as specified in the section.

R. All interface with instrumentation located outside of the panel shall be via interface relays. Terminations directly to PLC output or input module terminals is not acceptable.

S. 1/2" Foam insulation on interior of panel. Foam shall be secured to the panel in such a manner the glue or tape doesn't degrade for a minimum of 20years.

T. A 12" tall x 12" wide x 1" deep pocket secured to the inside of the exterior door shall be provided for clipboard, control panel schematic drawings and other document storage.

U. Interior light for each compartment which turns on when the compartment door is opened.

V. A compartment barrier shall be provided to separate the high voltage components from the control components.

W. Sized to house all control components, with spare space on back panel to add 10% of each relay, fuse, PLC I/O card, breaker, and terminal blocks provided under this project.

X. The dimensions of panel shall be as such to allow for the UPS to sit on the bottom or base of the control side compartment. Mounting the UPS to the side, the back, the top or any other space other than setting on the bottom of the panel will not be accepted.

Y. Provide a laminated plastic nameplate, which identifies station voltage, electric service size, and pump horsepower. Attach nameplate to exterior of panel with stainless steel screws directly above the generator receptacle.

Z. Door stop kits to hold exterior doors in desired position; Hoffman A-DSTOPK, or approved equal.

2.2 POWER DISTRIBUTION / SERVICE ENTRANCE DISCONNECT

A. Electrical service as detailed in the Contract Documents.

B. Service disconnects for the lift station enclosures shall be located outside of the lift station control cabinet to reduce the Arc Flash Hazard potential inside the lift station control panel.

C. Neutral bus for terminating the service neutral, the grounding electrode conductor, the force main ground connection (if any), and the equipment grounding conductors

1. Bond neutral bus to the control panel enclosure.

D. Surge capacitors rated 650 Vac RMS, 3 poles, 1.0 mfd per pole.

E. Valve type lightning arrester rated 650 Vac RMS, 20,000 amperes discharge capacity, 900 joules per pole, UL listed.

F. Current limiting fuse for each pole of the lightning arrester. Fuse type and size shall be as recommended by the lightning arrester manufacturer.

G. Control Circuit Surge Arrestor

1. UL-1449 recognized, diagnostic indicator, power line tracking, filtering, 315V peak clamping voltage (L-N), 10,000-amp single pulse surge capacity.

2. Manufacturer:

a. EDCO

b. MTL

c. Or equal.

2.3 MAIN SERVICE DISCONNECT BREAKER

A. Electronic trip, molded case.

B. Operating mechanism shall be quick-make, quick-break with provisions for padlocking in the open position.

C. Visible trip indication.

D. True RMS sensing.

E. Adjustable settings for

1. Long-time pickup.
2. Long-time delay.
3. Short-time pickup.
4. Short -time delay.
5. Instantaneous pickup.

F. Interchangeable rating plugs.

G. Thermal magnetic backup protection.

H. Long time and ground fault memory.

I. Trip indicators for overload, and short circuit.

J. Mechanical interlock to prevent the main service disconnect breaker and generator receptacle breaker from being closed simultaneously. Keyed interlocks are not acceptable.

K. Approved Manufacturers:

1. Cutler-Hammer
2. ABB
3. Square D
4. Siemens

2.4 POWER DISTRIBUTION BREAKERS:

A. Thermal magnetic, molded case.

B. Operating mechanism shall be quick-make, quick-break with provisions for padlocking in the open position.

C. Adjustable magnetic trip.

D. Approved Manufacturer:

1. Cutler-Hammer
2. ABB
3. Siemens
4. Square D

2.5 PUMP BREAKERS

A. Motor Circuit Protector (MCP):

1. UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault currents, instantaneous-only circuit breaker with front-mounted, field-adjustable, short-circuit trip coordinated with motor locked-rotor amperes.
2. High switching capacity.

3. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
4. Auxiliary contacts "a" and "b" arranged to activate with MCP handle.
5. Auxiliary contact to disconnect the pump protection module circuits when breaker is opened.

2.6 CIRCUIT BREAKER LOAD CENTER:

A. To be used for loads other than motors and less than 100A.
B. Provide molded case, non-adjustable, thermal-magnetic, quick-make, quick-break, type circuit breakers.
C. Provide multi-pole breakers where indicated.
D. Handle ties on single pole breakers are not acceptable.
E. Tandem breakers are not allowed.
F. Provide circuit breakers with engraved ratings on the handle that are visible without removing covers and with the interior doors closed.
G. Series rating of circuit breakers is not allowed.
H. Approved Manufacturer:
1. Square D
2. Cutler Hammer
3. ABB

2.7 PROGRAMMABLE LOGIC CONTROLLER

A. Provide backup memory module and battery backed RAM, with 25% spare capacity for future programing and control functions.
B. Power supply.
C. Discrete inputs, discrete outputs, analog input modules, and analog output modules as required for the control scheme.
D. Diagnostic indicators for CPU status and status indicator for each I/O point.
E. All I/O shall be optically isolated.
F. Provide fusing for all inputs and outputs.
G. Cables and all accessories as required for complete system operation.
H. Communications port, cards, software, programming, and all required appurtenances for a complete and operating system.
I. Minimum of 2-spare digital inputs (each type used), 2-spare digital outputs (each type used), and 1-analog input.
J. Provide communications ports/modules for a data connection to allow for remote monitoring and programming.
K. Minimum of 2 or 15% of the following spare inputs and outputs shall be provided:
1. Digital inputs (each type used)
2. Digital outputs (each type used)
3. Analog input (each type used)
4. Analog output (each type used)

L. Approved Manufacturer:

1. Allen Bradley Compactlogix

2.8 OPERATOR INTERFACE

A. Color touchscreen display.

B. Minimum size 10” (measured diagonally)

C. Manufacturer’s latest firmware and software for each OIT.

D. Program files shall be free of any locks, passwords, or restrictions as they are to become the sole property of the Owner at project completion.

E. Rated for viewing in direct sunlight.

F. Screens:

1. Screens on the operator interface shall be programmed in a manner to look similar to the existing City’s existing lift stations and offer similar control and information.

G. Approved Manufacturer:

1. Allen Bradley Panelview Plus 7

2. Maple System Industrial Touchscreen

2.9 FUSE TERMINALS

A. DIN rail mounted, touch safe, modular type.

B. 250V RMS, amp rating as required for application.

C. Use ¼” x 1 ¼” standard fuses sized according to application.

D. Blown fuse indicator light.

E. Manufacturer/Model:

1. Allen Bradley

2. Phoenix Contact

3. Or Equal

2.10 SERVICE SURGE PROTECTION DEVICE

A. Type 1 surge protection device, UL 1449 4th edition

B. Shall provide protection on all incoming phases.

C. Dry contact status indication for common alarm.

D. Dry contact indication for surge counter.

E. LED indicator when protection is on-line for each phase

F. Maximum surge current rating: 125KA per mode, 250KA per phase

G. Nominal discharge current rating (L-N): 20KA

H. Modes of protection: L-N, L-G, N-G, L-L

I. Minimum of 10 year full coverage and replacement warranty.

J. Manufacturer/Model:

1. ABB Current Guard 3
2. Or Equal.

2.11 PHASE MONITOR

A. Sensing Voltage: as required for application

B. Din rail mounted.

C. Environmental:

1. Operation temperature: -25 to 55°C.
2. Storage temperature: -30 to 75°C.
3. Humidity (non-condensing) 0 to 90% RH.

D. Dry contact which activates upon loss of a power phase.

E. Manufacturer/Model:

1. Sycom Motorsaver
2. Or Equal.

2.12 CONTROL CIRCUIT SURGE PROTECTION DEVICE

A. 120 VAC In-Line Device

B. Din rail mounted

C. L-L, L-PE, and N-PE protection.

D. Indication flags and voltage free contacts for remote status monitoring.

E. To be located ahead of the UPS, and downstream of the control circuit breaker.

F. Manufacturer/Model:

1. Erico
2. Edco
3. Or equal

2.13 POWER SUPPLIES 12 & 24VDC

A. UL listed for use in UL 508 and UL 698 panels.

B. Line regulation 4% line variations from 105 to 132.

C. Load regulation 4% load variations from 0 to full load.

D. Not to exceed 100mv peak to peak on noise.

E. Hold time at max load shall be 16msecs.

F. Output current limited and overvoltage crowbar sensing circuit.

G. Output voltage adjustment.

H. DIN rail mountable.

I. The power supply shall provide surge protection, isolation and outage carry-over of up to 6 cycles of the AC line or 40ms at 24VDC.

J. AC input to the power supply shall be fused.

K. LED indicator to indicate it is powered on.

L. Power supplies shall be sized appropriately to handle the full load connected to them.

1. Provide an additional 50% spare capacity.

2. Power calculations showing the required load with additional spare capacity shall be provided during the submittal phase.

2.14 ENCLOSURE FORCED AIR HEAT

A. Manufactured unit with aluminum housing and integral thermostat and 0 to 100ºF adjustable range.

B. UL labeled.

C. Provide quantity and size as required to meet temperature requirements specified (min. of 45ºF).

D. Manufacturer/Model:

1. Hoffman DAH Series or equal.

2. Or Equal.

2.15 CONTROL RELAYS

A. Blade plug-in type with dust cover and socket.

B. Coil: continuous operation at 120VAC ±10% unless required to be otherwise per the circuit it is used in.

C. Contacts, 3 pole, double throw, minimum.

1. 10 amps, make-break, 120 VAC. Resistive.

2. Insulation resistance: 1000 megohms at 500 VDC.

3. Dielectric: 2000 VAC, 60 Hz.

D. Operating time:

1. 35 milliseconds (nominal) energization.

2. 100 milliseconds (nominal) De-energization.

E. Mechanical life: 10^6 operations.

F. Temperature: 0° to 70°C

G. Manufacturer/Model:

1. Allen-Bradley

2. Idec

3. Pre-approved equal.

2.16 POWER RELAYS

A. Coil rating to work with control system power.

B. Contact rating which matches or exceeds the circuit's overcurrent protective device.

C. Approved Manufacturer:

1. Allen-Bradley

2. Square D

3. Pre-approved equal.

2.17 SELECTOR SWITCHES

A. Heavy duty, 30.5 mm, oil tight units.

B. Selector switches with black knob lever operator with white insert.

C. Contacts as needed for control scheme.

D. Approved Manufacturer:

1. Allen-Bradley 800T/H
2. Equal from Square D
3. Pre-approved equal.

2.18 PUSHBUTTONS

A. Heavy duty, 30.5 mm, oil tight units.

B. Black operator.

C. Contacts as needed for control scheme.

D. Approved Manufacturer:

1. Allen-Bradley 800T/H
2. Equal from Square D
3. Pre-approved equal.

2.19 INDICATING LIGHTS

A. Heavy duty, 30.5 mm, oil tight units.

B. High visibility cluster LED.

C. Push-to-test type.

D. Lens color as indicated in Contract Documents:

1. R = red for fail and alarm indication
2. G = green for run indication
3. A = amber for called for or warning indications

E. Approved Manufacturer:

1. Allen-Bradley 800T/H
2. Equal from Square D
3. Pre-approved equal.

2.20 RUNNING TIME METERS

A. 6 digit in hours and tenths of an hour.

B. Synchronous motor driven.

C. Non-reset type.

D. 120 Vac, 60 Hz.

E. Approved Manufacturer:

1. Trumeter 710
2. Hobbs 20017
3. Pre-approved equal.

2.21 INTRINSICALLY SAFE BARRIER

A. UL labeled unit suitable for using nonrated devices in NEC Class 1, Division 1 and Class 1, Division II, group D hazardous locations.

B. Supply for each instrument located in the hazardous location(s).

C. Terminal strip connections

D. Approved Manufacturer:

1. Pepperl-Fuchs Z- System
2. Symcom Intrinsically Safe Relay
3. Phoenix Contact
4. Or equal

2.22 GFCI RECEPTACLE

A. GFCI receptacle near the bottom of the enclosure mounted on the back panel. Provide on inner door if shown as such on the Contract Documents.

B. Receptacle shall be fed by a 10A min. circuit breaker powered from the control panel power circuit, ahead of the UPS.

C. Specification grade, 3-wire grounding type, NEMA 5-20R.

D. Side wired.

E. Rated 20 amperes, 125 volts.

F. LED trip indicator.

G. Approved Manufacturers:

1. Cooper.
2. Hubbell.
3. Leviton.
4. Pass & Seymour.

2.23 UNINTERRUPTIBLE POWER SUPPLY (UPS)

A. Minimum size of 1000VA

B. Input and output voltage of 120VAC.

C. True on-line with spike, line noise, and RFI/EMI Filtering. Output shall be a true AC sine wave.

D. UL listed.

E. Battery sized to power 150 percent of the panel power requirements and all devices powered from the panel control circuits for 10 minutes.

1. Provide power calculations showing the required load with additional spare capacity during the submittal phase.

F. Surge protection shall pass ANSI/IEEE C62.41.

G. Operating temperature range 32 degrees to 113 degrees F.

H. Internal NO dry contact for remote status monitoring.

I. Provide a receptacle mounted on the backpanel near the bottom of the panel to plug in the UPS for input power. Provide a male plug end to plug into the output of the UPS of which provides power to the control devices and circuits.

J. Provide a relay at the load side of the UPS which will route the control power to bypass the UPS upon a UPS output failure.

K. Shall be set inside the control panel, at the bottom of the panel.

L. Manufacturer/Model:

1. Eaton Powerware

2. Or Equal.

2.24 CONTROL PANEL LIGHT KIT

A. Integrated automatic switch, spring-loaded, turning on when door is opened and shutting off when door is closed.

B. 120VAC, LED.

C. Provide one light for each compartment of the control panel.

2.25 IDENTIFICATION

A. Devices on the door exterior shall be identified with engraved phenolic tags which are engraved with white lettering on a black background and are attached with stainless steel screws.

B. Devices on interior doors shall be identified with engraved phenolic tags which are engraved with white lettering on a black background and are attached with stainless steel screws.

C. Devices mounted inside the panel shall be identified with embossed labels with adhesive backs as shown on the Contractor submitted wiring diagrams. Labels shall be on the mounting panel, near the device.

2.26 TERMINAL BLOCKS

A. DIN rail mounted, touch safe, modular type.

B. 600V RMS, 30 amps minimum or higher amp rating as required for application.

C. Connector metal body material: Copper alloy, min 85% copper with nickel or tin plating.

D. Terminal screw material: Bronze with tin plating.

E. Screw terminals on both side only. No other types shall be allowed.

F. Shall terminate wires without additional preparation: i.e. tinning of wire ends, application of ferrules, etc.

G. The insulation housing shall have primary entry funnels to facilitate insertion of wires.

H. The insulation housing shall prevent stray strands from shorting to adjacent terminal blocks.

I. The termination shall be gastight to prevent corrosion due to corrosive atmospheres.

J. Terminal screws shall be captive in the metal body or via the insulation housing.

K. Once tightened the terminal screws shall be locked in place to prevent loosening due to shock and vibration.

L. The terminal block shall be useable with accessories such as center or insertion bridges; test sockets; separating plates; and end covers, etc. The accessories used shall also be touch safe.

M. For wire identification, the terminal block shall provide space for marking with pre-marked labels. Handwritten labels shall not be allowed.

N. Manufacturer/Model:

1. Allen Bradley
2. Phoenix Contact
3. ABB
4. Or Equal

2.27 CONTROL PANEL WIRING

A. Stranded copper conductors with color-coded 600-volt insulation.

B. Both ends of all conductors identified with wire tags which are numbered in accordance with the wiring diagrams, and which are protected with a clear, heat-shrinkable sleeve.

C. Complete wiring diagrams prepared specifically for this Site. All termination points shall be numbered.

D. Both ends of all conductors identified with wire tags which are numbered in accordance with the wiring diagrams, and which are protected with a clear, heat-shrinkable sleeve.

E. Provide enclosed wire ways in the panel.

1. Wireways shall be mounted parallel or perpendicular to panel enclosure lines.
2. Wire ways shall have removable covers, which do not require the use of tools.

F. All spare PLC inputs/outputs shall be wired to terminal blocks.

G. Provide separate terminal block grouping or segments for digital inputs, outputs, analog inputs and analog outputs.

H. Designated wire coloring shall be used to identify the function of the wire. Example, all digital input cabling shall be a designated color different than digital output wiring.

2.28 RADIO AND ANTENNA

A. Radio to be relocated from existing control panel.

B. Provide yaggi antenna mounted on a pole, existing antenna can be reused if in good condition.

C. Provide coaxial surge protector

1. Erico CSP1NB90

D. Provide coax cabling between radio, surge protector and antenna.

2.29 NETWORK COMMUNICATION EQUIPMENT

A. Unmanaged Ethernet Switches

1. Unmanaged, store and forward wire speed switching.
2. Automatic address learning, aging and migration.
3. 10-35VDC input power with redundant input terminals.
4. Operating humidity levels 5 to 95%RH.
5. Operating temperature of 0 to 60°C and storage temperature of -40 to 85°C
6. DIN rail mounting

7. Minimum of 5 ethernet ports and 2 fiber ports
8. Manufacturer/Model:
    a. Allen-Bradley Stratix
    b. NTron
    c. Or Equal

B. CAT6 Copper Patch Cables:

1. Provide quantity needed for a complete system.
2. Length of each patch cable shall be as needed for each individual application. Excess length of any patch cables shall be minimal.
3. Provide snagless type patch cords.

2.30 SPARE PARTS

A. All spare parts shall be delivered to the City's Waste Water Treatment facility. Parts shall be appropriately packed and labeled for storage. Label shall identify the part(s) and station of which they are associated for.

1. 2 spare fuses of each type used.
2. 2 spare relays of each type used.
3. 2 spare lights of each type used.
4. 1 spare power supply of each type used (not including PLC power supply).
5. 1 spare intrinsic safety barrier of each type used.
6. 1 spare PLC CPU (fully programmed for City Lift Station operation).

PART 3 -- EXECUTION

3.1 INSTALLATION

A. Control panels shall be secured to concrete pad using stainless steel hardware.

B. Panels shall be constructed using fabrication techniques that allow for removal and maintenance of all equipment after installation without removal of unrelated components.

C. Contractor shall provide all hardware required to install equipment. The Contractor shall review the wiring diagrams for the equipment furnished and modify the wiring to conform to the requirements of the equipment furnished. The Contractor shall not be compensated for extra labor and materials, which are required to change wiring which was not confirmed with the equipment manufacturer's drawings.

D. All programmable devices shall be completely programmed by the Contractor. This shall include modification in the field to obtain the mode of operation as specified herein. Programming shall be done in such a manner as to allow complete access to the program in the future by the Owner for changes and or additions. Program locks shall not be used.

E. Adjust trip settings of circuit breakers and motor circuit protectors with adjustable instantaneous trip elements. Initially adjust at six times the motor nameplate full-load ampere ratings and attempt to start motors several times, allowing for motor cooldown between starts. If tripping occurs on motor inrush, adjust settings in increments until motors start without tripping. Do not exceed eight times the motor full-load amperes (or 11 times for NEMA Premium Efficiency motors if required). Where these maximum settings do not allow starting of a motor, notify Engineer before increasing settings.

F. Install wiring between equipment and remote devices as specified and as required for the control specified in other sections.

3.2 CONTROL PANEL

A. The equipment mounted within the enclosures shall be mounted on the enclosure back panel, neatly organized, and shall be in accordance with the manufacturer's recommendations.

B. All wiring within the enclosure shall be through the plastic wiring ducts with maximum 60% fill. All wiring not in ducts shall be in plastic spiral bindings. All I/O devices shall be wired to rail mounted terminal blocks.

C. All field wiring shall terminate at the rail mounted terminal blocks that shall be mounted either at the bottom or on the side of the enclosure back panel depending on where the I/O conduits penetrate the enclosure.

D. The field wiring terminals shall be clearly identified as to which I/O terminals they are wired.

E. Jumpers between adjacent terminal blocks shall be copper jumper bars supplied by the terminal block manufacturer.

F. Install all the system equipment including PLCs and interconnecting cabling as required. This work shall include all interconnection wiring from new and existing equipment as required for the completion of the system.

G. It shall be the responsibility of Contractor to ascertain that all field devices are compatible and consistent with the new system design. This includes reviewing drawings and data to ascertain the compatibility and consistency of the system with the field devices on such considerations as:

1. Equipment size and available space.
2. Power levels.
3. Power sources.
4. Logic schemes.
5. Signal types and levels.
6. Interface devices where required.
7. Operating environment conditions.
8. All other aspects of field devices impacting on the design of the system.

H. All spare and unused I/O shall be wired to terminal strips. This wiring shall include all auxiliary devices and components to complete the installation (e.g., interposing relays, wireways).

I. It shall be the responsibility of Contractor to include all the inputs and outputs required to maintain existing functionality and to meet all aspects of this specification, regardless of whether they are specifically included in the I/O listing in this specification.

3.3 GENERATOR CONNECTION TESTS

A. Lift station operation shall be tested on generator power.

B. Contractor shall test rotation and change wiring if required. This shall occur prior to powering the control panel on generator power.

C. Where the Owner has a portable generator, the lift station shall be tested with the actual generator the Owner intends on using for the station.

D. All generator monitoring, alarms and remote control shall be tested.

3.4 RADIO INSTALLATION

A. Provide testing radio communication to each lift station prior to installation of the antenna to determine optimum location and height of the antenna.

B. Ground and install the radio antennae and cable per manufacturers recommendations.

C. Reuse existing antenna mast and Yagi antenna, provide new conduit and coax to the existing mast.

D. Check, test, calibrate, and put into operation all radio systems specified herein.

E. Instrumentation shall be provided as required to aim antennae for maximum signal strength.

F. Re-aiming of antennae shall be provided where need arises during the warranty period.

G. Coordinate any required modifications to the existing FCC radio license. Owner will pay any required FCC fees.

3.5 SCADA SYSTEM PROGRAMMING

A. Provide all programming, wiring, and hardware modifications to transmit, receive, display, trend, report, alarm, and handle the data.

B. Programming shall include but not be limited to

1. Local PLC
2. Local OIT
3. Owner PC Human Machine Interface Software.
4. Repeater stations
5. All other sites which may need programming modifications to integrate new lift station.

C. A copy of the complete PLC program shall be saved on the respective PLC memory card.

D. The PLC's shall be programmed to retain setpoint and other critical data so that the PLC will automatically resume the process controls when power is restored to the panel after a power failure.

E. SCADA system shall be designed and programmed to operate without the use of either the SCADA PC or HMI. Meaning, programming, data processing, control loops, algorithms and other programming features shall reside on the PLC. If the SCADA PC is off or not operating, or the SCADA HMI is not operating, the SCADA system shall still operate as specified.

F. Screens shall be programmed to display each process, monitoring point, and setpoint for the Lift Station. Graphics shall be designed in such a manner to symbolize in 2D of the actual process and equipment being controlled. Screens with text buttons and text indicators only will not be allowed.

G. Screen background shall be a solid color, other graphics in the background will not be accepted.

H. Display the call, run, fail, position and other status points of each piece of equipment and alarms for the associated equipment.

I. Screen(s) shall allow the operator to adjust all variables and view real-time data associated with the process control and equipment.

J. Screens(s) shall display alarms and allow the operator to acknowledge the alarms at any location.

K. Provide screens required for the system operations as specified in Contract Documents.

L. Systems integrator shall expect approximately 8 additional hours of coordinating screen layouts and display options with the Owner. Systems integrator shall make programming changes to the screens as requested by the Owner/Engineer, at no additional cost to the Owner.

3.6 SCADA SYSTEM MODIFICATIONS

A. Provide all programming, wiring, and hardware modifications to transmit, receive, display, trend, report, alarm, and handle the data between the lift stations and the SCADA Master at the City's Wastewater Treatment Plant and Waste Management site.

B. Programming shall be done in a manner consistent with the existing programming and shall include but not be limited to

1. Master radio.
2. Master PLC.
3. Human Machine Interface Software.
4. Software Alarm dialer.

C. Alarm dialer shall be modified as required to incorporate the new alarms in similar fashion to existing lift station alarms.

D. Screens/Reports

1. Addition of new Lift Stations to existing map screen.
2. Modify existing lift station screens to incorporate new monitoring points, alarms and setpoints.
3. Add alarms to SCADA PC alarm dialing software.

3.7 SYSTEM TESTING

A. All components of the system shall be thoroughly simulated and testing in the control supplier's facility prior to shipment.

1. Contractor shall provide testing approval certification from the panel manufacturer prior to receiving shipment.

B. On Site Testing:

1. Verify that each instrumentation and control device is wired and operating correctly. Owner control system programmer will provide "online" PLC testing of each field device, and coordinate with Contractor the proper operation of each instrumentation and control device.
2. Provide services of a factory-trained person to checkout, test, and commission the system on Site.
3. Place equipment into service and provide operation as specified.
4. Provide actual activation of each control function and alarm in the system. If actual activation is not possible, the function shall be simulated.
5. Record all Changes in the Control Systems
    a. Revise all wiring diagrams and schematic diagrams to show final installation.
    b. Insert revised diagrams into each operation and maintenance manual in place of original diagrams.

3.8 SYSTEM COMMISSIONING & DEMONSTRATION

A. Upon completion of Contractor's acceptance checks, settings, and tests, the Contractor shall demonstrate that the equipment is in good operating condition and properly performing the intended function.

B. Process Engineer will witness operational tests and instruct programmer to adjust setpoints to achieve the operation desired by the Process Engineer.

C. Contractor shall have system programmer at site for the commissioning process.

D. A minimum of 2-week notice will be provided to the Contractor for scheduling of commissioning dates.

E. If Contractor has not completed programing and system tests prior to the system commission and demonstration, Contractor shall reschedule the demonstration at Contractor's expense.

3.9 OPERATOR TRAINING

A. System commission and demonstration shall be completed before factory-trained personnel instruct the operating personnel.

B. Training shall be not less than two 2-hour sessions. Sessions shall be on 2 separate dates selected by the Owner.

C. Training time specified shall be time actually spent at the Site and shall not include travel time.

D. Training time does not include startup, testing, demonstration and time used for system modifications.

3.10 ADDITIONAL PROGRAMMING MODIFICATIONS

A. If during construction, Engineer directs control integrations programmer to make changes to the control programing which are not outlined above and Contractor feels additional programming time over and beyond the base bid controls specified above, Contractor shall submit a Change Order proposal for the programming time he/she feels is required to make the suggested modifications.

B. Contractor shall not make programming modifications which he/she feels is outside the scope of work unless Contractor's Change Order has been approved by Engineer/Owner. Work done prior to approval of such Change Order request will not be retroactively awarded to Contractor.

C. Contractor shall provide an additional 8 hours of programming time to occur in the field after equipment has been installed, over the base bid programming mount. The unused hours will be credited to Contractor Change Order request forms upon approval of the request by Owner/Engineer. Time not documented in such a manner will not be acknowledged as additional programming time needed and will be considered as base bid programming time.

3.11 IDENTIFICATION

A. Identify field-installed conductors, interconnecting wiring, and components.

B. Provide warning signs as required by the NEC and where noted in the specifications.

C. Label each enclosure-mounted control and pilot device.

D. Mark up a set of manufacturer's connection wiring diagrams with field-assigned wiring identifications and return to manufacturer for inclusion in Record Drawings.

****END OF SECTION****

G. Stainless steel fasteners with rubber sleeves for attaching floats to the stainless-steel cable.

H. Manufacturer:

1. Anchor Scientific Eco-Float

2. Or Equal

PART 3 -- EXECUTION

3.1 COMMISSIONING

A. Contractor shall change relay connections, position limit switches, and make all other adjustments required to obtain the proper operation of the equipment.

B. Contractor shall demonstrate to the Owner and the Engineer that all control systems operate as specified.

3.2 TESTING AND COMMISSIONING

A. Contractor shall check, test, calibrate, and put into operation all control systems specified herein and shall demonstrate their operation to the Engineer.

B. All changes shall be recorded and all control schematic and wiring diagrams shall be revised and re-issued with the changes.

3.3 IDENTIFICATION

A. All devices shall be identified with a laminated plastic nameplate which has white lettering of not less than 3/16 inch on a black background. Nameplates shall be attached with screws.

****END OF SECTION****

SECTION 31 00 00 - SITE PREPARATION

PART 1 -- GENERAL

1.1 GENERAL

A. This section covers the furnishing of all labor, materials, tools, equipment, and performance of all work and services necessary or incidental to the clearing of the site indicated on the plans or specified herein.

PART 2 -- MATERIALS (NOT USED)

PART 3 -- EXECUTION

3.1 SITE STRIPPING

A. Contractor shall remove boulders, large stones, and other obstructions, including sod, trees, bushes, undergrowth or rubbish, and any other unsuitable material within the grading limits of the project.

B. Contractor shall protect adjacent structures and other surface improvements. All clearing and grubbing operations shall be done in a manner that will not damage or jeopardize the surrounding property or plant life.

C. Debris resulting from clearing and grubbing shall be removed from the site. Debris shall not be burned on the site or used to fill or backfill, but shall be landfilled.

D. The OWNER will designate which trees, if any, are not to be removed from the site at the time of construction. The Contractor shall not remove any trees without the prior approval of the OWNER.

3.2 DISPOSAL

A. Debris resulting from the clearing operation shall be removed from the site and landfilled or disposed of in accordance with all state laws and local ordinances at the Contractor's expense.

B. Concrete slabs shall be broken up and removed from the site and landfilled or disposed of in accordance with all state laws and local ordinances at the Contractor's expense.

C. Materials specified for salvage shall be delivered to the place designated by the OWNER. All other materials shall become the property and responsibility of the Contractor.

D. Excess excavated earth shall be disposed of by the CONTRACTOR at a site selected by the CONTRACTOR.

**** END OF SECTION ****

SECTION 31 22 19 - FINISH GRADING

PART 1 -- GENERAL

1.1 GENERAL

A. Upon completion of the construction and the topsoiling operation, the Contractor shall finish grade the entire construction site to conform with the contours and elevations shown on the plans and to the requirements stated in the specifications.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02 00 00 - Site Work

B. Section 32 92 00 - Soil Preparation, Seeding, and Sodding

PART 2 -- PRODUCTS

2.1 GENERAL

A. Products used in finish grading shall be as specified elsewhere in the contract documents.

PART 3 -- EXECUTION

3.1 GENERAL

A. The site shall be finish graded to allow surface water to drain away from embankments, buildings, and structures toward drainage ditches, waterways, and/or structures.

B. No direct compensation will be paid for finish grading. This work will be considered incidental to the construction.

**** END OF SECTION ****

SECTION 31 23 00 - EXCAVATING AND BACKFILLING

PART 1 -- GENERAL

1.1 WORK INCLUDED

A. Topsoil Removal

B. Excavation

C. Pipeline Trench Excavation

D. Sand Backfill and Engineered Fill

E. Compacted Aggregate Bedding

F. Drain Rock

G. Random Backfill

H. Pipeline Trench Backfill

I. Excess Materials

J. Subgrade and Backfill Tests

K. Cutting and Restoring Existing Surfaces.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01 33 00 - Submittals

B. Section 32 10 00 - Roads, Walks, and Curbs

C. Section 33 00 00 - Site Utilities

1.3 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Commercial Standards

1. ASTM D 422 - Method for Particle-Size Analysis of Soils
2. ASTM D 698 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-lb. (2.49-kg) Rammer and 12-in. (304.8-mm) Drop.
3. ASTM D 1556 - Test Method for Density of Soil in Place by the Sand-Cone Method.
4. ASTM D 1557 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb. (4.54-kg) Rammer and 18-in. (457-mm) Drop.
5. ASTM D 2419 - Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
6. ASTM D 2487 - Classification of Soils for Engineering Purposes.
7. ASTM D 2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
8. ASTM D 4254 - Test Methods for Minimum Index Density of Soils and Calculation of Relative Density.

9. ASTM D 2321 - Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

B. Specifications

1. The State of Minnesota, Department of Highways, "Standard Specifications for Construction," 2020 Edition, and Current Supplemental Specifications for Construction Divisions II & III, shall govern. The numbers shown in parenthesis in the following Special Provisions refer to the Section of the governing specifications.

2. "Standard Utilities Specifications for Watermain and Sanitary Sewer and Storm Sewer Installation," as prepared and published by the City Engineers Association of Minnesota, dated 2018, shall apply to construction in this contract except as modified or altered in these Special Provisions and are referred to as CEAM Specifications.

PART 2 -- PRODUCTS

2.1 TOPSOIL REMOVAL

A. Topsoil shall be removed from the area to be excavated for the structures, construction of embankments, and/or within the grading limits of the project. The excavated topsoil shall be stored on the site for reuse. Stockpile shall not be located where it will interfere with other phases of the project or create a danger to public safety.

B. All brush, weeds, grass, roots, or other undesirable material shall be disposed of by the Contractor.

C. Care shall be exercised in salvaging the topsoil so that the material is reasonably free of subsoil, stones (greater than two inches in diameter), and other undesirable materials. All seeded and sodden areas shall receive 4 inches of topsoil. If salvaged and stockpiled topsoil is insufficient, then the CONTRACTOR shall provide additional topsoil at no extra cost to the OWNER.

2.2 EXCAVATION

A. Contractor shall excavate to the lines and grades as shown on the plans and as noted in this specification. The excavation shall be no larger than safety requires, permit adequate inspection, and permit the construction of various contiguous components of the basic structure. All areas of the plant site to be covered by fills, structures, or roads shall be stripped to a minimum depth of three inches or to deeper depths to remove any grasses, roots, or any remaining vegetation.

B. Contractor shall remove old foundations, boulders, or other undesirable material encountered during the excavation process.

C. Excavated materials shall be stored on the site in a location that permits construction to proceed. Excess excavated material or material that cannot be conveniently stockpiled on the site shall be removed to a location selected by the OWNER and shall then be returned to the site as necessary to be used as random backfill.

D. Excavation shall be sloped or otherwise supported in a safe manner in accordance with applicable State and Federal industrial safety requirements.

E. Excavation in rock or other unyielding material shall be carried to a depth of not less than 6 inches below the grade required. The excavation will then be brought back to grade with granular backfill and compacted in accordance with this specification.

F. However, if the subgrade material becomes soft or unsuitable through the Contractor's negligence, the undesirable material shall be excavated. The excavated area shall then be filled with granular material and compacted in accordance with this specification.

G. Contractor shall excavate all material for structures to a depth of 12 inches below the bottom of the structure elevations shown on the plans. Oversize excavation one foot horizontally beyond the footing slab for each foot vertically that the excavation is below the footing.

H. The area shall be protected from surface runoff. Pumps and related appurtenances shall be readily available to remove excess water. Standing water will not be permitted in the excavation. Temporary ditches or drains shall be constructed to control surface water and protect the site.

I. The Engineer shall be notified when the site is ready for footings, slabs, etc., in ample time for Engineer to inspect the prepared area.

J. The excavated "bearing area" shall be protected from frost. Concrete shall not be poured on frozen subgrade.

K. If an unexpected soft or yielding subgrade is encountered in the site at the required subgrade elevation, the Engineer shall be notified.

L. Upon completion of the excavation as described, the Contractor shall notify the Engineer that the foundation soils are ready for testing.

M. During cold weather, excavate to expose only as much foundation soil as possible to protect from freezing. Fill material shall not be placed over frozen materials.

N. If natural clays are present at the foundation level, excavation work must be undertaken carefully to minimize disturbance due to moisture, construction equipment, and foot traffic. If any soils become disturbed, they shall be removed prior to placing fill material or constructing foundation elements.

O. No direct compensation will be paid for structural excavation. The cost for structural excavation shall be included in the lump sum bid.

2.3 PIPELINE TRENCH EXCAVATION

A. The limits of the working area shall be restricted to the easement boundaries. Excavated materials shall not be placed outside these boundaries. Topsoil shall be stockpiled for reuse.

B. All open-cut trenches shall be excavated to permit the placement of bedding and haunching material under and around the proposed sewer. The undercut for pipe bedding shall be a minimum of six inches below the bell of the sewer. This work shall be incidental to the pipe construction.

C. The pipe zone shall be considered to include the full width of the excavated trench from the bottom of the trench to 12 inches above the top of the pipe (exclusive of bells or collars). Whenever the maximum allowable width of the pipe zone is exceeded for any reason except as shown, specified, or directed by the Engineer, the Contractor shall notify the Engineer. It is understood and agreed that such over-excavation in the pipe zone increases the earth load on the pipe, and special bedding or cradling for the pipe within the pipe zone, except as shown, which is required as a result of the Contractor's trenching operations shall be furnished by the Contractor without any additional cost to the OWNER.

D. Trenches shall be over-excavated beyond the depth shown when ordered by the Engineer. Such over-excavation shall be to the depth ordered. The trench shall be refilled to the grade of the bottom of the granular bedding material with foundation material conforming to CEAM Specification 2621.2F and compacted to 95 percent of maximum density.

E. All over-excavation shall be performed by the Contractor at his own expense when the over-excavation ordered by the Engineer is less than 6 inches below the limits shown.

2.4 GRANULAR BACKFILL AND ENGINEERED FILL

A. Water from areas to receive granular backfill shall be removed before commencing work, and areas shall be kept free of water during filling and compaction. All topsoil and organic materials in any area to receive Engineered Fill or granular fill shall be removed to a minimum depth of 12 inches.

B. Where footings, concrete floor slabs, or structures are to be supported on Engineered Fill or granular fill, the entire surface of the fill area shall be smoothed, leveled, and compacted using heavy vibratory equipment until there is no loss of elevation. The sand fill material shall be placed in 6" deep lifts and compacted to at least 100% of the maximum density given by ASTM D698 (Standard Proctor Density). The fill shall extend beyond the edges of the structure, one foot for each foot of fill placed below the structure. The compacted lift shall be relatively smooth and level.

C. Frozen material or material containing ice or snow shall not be used for fill. Sand fill shall not be placed on soil that is frozen or covered with ice or snow. Necessary precautions shall be taken during freezing weather to prevent freezing of the sand fill during placing and compaction.

D. All debris shall be removed from the excavated areas before backfilling.

E. Excavations shall be promptly backfilled as work permits. Foundation walls or tank walls shall not be backfilled until the respective walls have achieved full design strength. The walls shall be adequately shored prior to backfilling.

F. The excavated area outside of the building foundation walls and the walls of all tanks shall be filled with granular fill. Unless otherwise noted, the fill area shall be defined by a line 30° from the vertical plane, starting at a point at the base of the foundation. Granular fill shall be placed in 6-inch deep lifts, and each lift shall be compacted by approved methods to not less than 100 percent of Standard Proctor Density beneath structures; 98% of Standard Proctor Density beneath roadways, walks, or paved areas; and 95 percent of Standard Proctor Density around the sides of structures. Compacted lifts shall be relatively smooth and level.

G. The backfill shall be tested for proper density in accordance with paragraph 2.10 "Subgrade and Backfill Tests" of this section. After the recommendations of the soil testing laboratory have been reviewed by the Engineer, the work may proceed.

H. The granular fill to be used for backfilling shall be an SW clean well-graded sand (Unified Soil Classification System), free of organic impurities. The well-graded sand shall have less than 40% passing the No. 40 sieve and less than 10% passing the #200 sieve with the maximum aggregate size of 1-1/2".

I. The Contractor shall furnish gradation tests at their expense for all fill material prior to use from an independent testing laboratory. The testing laboratory reports shall be reviewed and approved before the material is placed. Should the material being placed be different than previously tested, the Contractor shall furnish additional gradation tests.

J. Sand backfill around building walls shall be capped with a one-foot minimum layer of clay and sloped away from the structure to provide good drainage.

K. If the Contractor is in doubt as to the bearing capacity of the soil at the bottom of the footings or other work, he shall notify the Engineer before proceeding with his work. By failing to do this, he shall be responsible for any damage to the structure due to settlement.

2.5 COMPACTED AGGREGATE BEDDING

A. Following site preparation and excavation, a layer of aggregate bedding, 12 inches in thickness, shall be placed under all structures. Compacted aggregate bedding shall extend laterally beyond the edges of footings, one foot for each foot of fill placed.

B. Compacted aggregate bedding for well-draining soils shall be a well-graded mineral product and conform to the following gradation requirements.

Sieve Size	Percent Passing
1 inch	100
3/4-inch	90-100
3/8-inch	50-90
No. 4	35-80
No. 10	20-65
No. 40	10-35
No. 200	3-10

C. The compacted aggregate bedding shall be thoroughly moistened and compacted with at least two passes using an approved plate or roller-type vibratory compacting equipment to 98 percent of Standard Proctor Density.

D. The aggregate bedding for poor draining clayey soil shall be a free-draining mineral product, excluding crushed carbonate quarry rock, crushed concrete, and salvaged bituminous mixture, and conform to the following gradation requirements.

Sieve Size	Percent Passing
1”	100
3/4”	85-100
3/8”	30-60
No. 4	0-10

E. After placement of the bedding material, the entire area shall receive at least two passes from approved plate-type vibratory compaction equipment.

2.6 DRAIN ROCK

A. Drain rock shall be a free-draining mineral product, excluding crushed carbonate quarry rock, crushed concrete, and salvaged bituminous mixture, and conform to the following gradation requirements.

Sieve Size	Percent Passing
1”	100
3/4”	85-100
3/8”	30-60
No. 4	0-10

2.7 RANDOM BACKFILL

A. Select material removed during excavation shall be used for backfilling the outside walls of the structures above the original grade where both sides of walls are backfilled. Where the interior is open (basement or tank) granular backfill shall be used. This material shall also be used to raise the grade of the site to the planned subgrade elevation where required.

B. Water shall be removed from areas to receive backfill before commencing work, and areas shall be kept free of water during filling and compaction.

C. Frozen material containing ice or snow shall not be used for fill. Fill material shall not be placed on soil that is frozen or covered with ice or snow. Necessary precautions shall be taken during freezing weather to prevent freezing of fill during placing and compaction.

D. Except where otherwise specified for a particular structure or ordered by the Engineer, backfill placed around and beneath structures and beneath paved areas shall be placed in horizontal layers not to exceed 8 inches in thickness, as measured before compaction, where compaction is attained by means of sheepsfoot rollers. Where the use of sheepsfoot rollers is impractical, the layers shall not exceed 6 inches by thickness before compaction, and compaction shall be attained by means of hand-operated power-driven tampers. The backfill shall be brought up evenly with each layer moistened and compacted by mechanical means to 100 percent of Standard Proctor Density beneath structures; 98% of Standard Proctor Density beneath roadways, walks, or paved areas; and 95 percent of Standard Proctor Density around the sides of structures.

2.8 PIPELINE TRENCH BACKFILL

A. Pipeline backfilling shall be done in accordance with the requirements of these specifications, ASTM Specification D-2321, and Section 2611.3J of the Standard Utility Specifications.

B. Trench excavation for all buried pipes shall be carried to the required depth to permit installation and compaction of the granular bedding materials under and around the pipe as shown in the typical section shown on the Plan. The bedding and haunching material gradation shall be as follows:

SANITARY SEWER

Bedding and Haunching Material Gradation

Sieve Size	Percent Passing
1 Inch	100
3/4 Inch	80-100
3/8 Inch	30-60
No. 4	0-15
No. 200	0-5

No direct compensation shall be paid for furnishing, placing, and compacting the specified granular sewer pipe bedding and haunching materials. The cost of furnishing, placing, and compacting these materials shall be included in the unit price bid for sanitary sewer construction.

C. Where pipeline trenches are not below structures, roads, or walks, suitable material from the excavation, other than topsoil, shall be used for trench backfill. Proctor Density shall be 95 percent of the maximum density. Compaction shall be obtained by mechanical means. Where pipeline trenches are below structures, roads, or walks, backfill shall be as specified for granular fill.

D. After the initial portion of the backfill has been placed as specified above, backfilling the remainder of the trench may proceed. The remainder of the backfill shall be select material obtained from the excavation and shall be placed in horizontal layers. Each layer shall be moistened, tamped, puddled, rolled, or otherwise compacted to 98 percent Standard Proctor Density where the trench is located under structures, beneath pavements, and 95 percent of maximum density elsewhere.

2.9 EXCESS MATERIAL

A. All excess topsoil shall remain the property of the CONTRACTOR and shall be disposed of by the CONTRACTOR at the CONTRACTOR'S expense.

B. Excess excavated earth shall be disposed of by the CONTRACTOR unless otherwise specified. The waste area shall be leveled to conform to the adjacent topography and graded to shed surface water.

2.10 SUBGRADE AND BACKFILL TESTS

A. Where backfill is required to be compacted to a specified density, tests for compliance may be made by the Engineer, at the expense of the OWNER, using the test procedure prescribed by the "Standard Test Methods for Moisture-Density Relations of Soils Using a 5.5 lb. Rammer and 12-inch Drop" (ASTM D698).

B. Field density tests shall be performed in accordance with the test procedure specified in "Standard Test Methods for Density of Soil in Place by the Sand Cone Method" (ASTM D1556) or "Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)" (ASTM D2922).

C. Sufficient time shall be allotted to the Engineer for performing the necessary control tests for an acceptance of the compacted layer before attempting to place new fill material. Any layer or portion thereof that does not meet density requirements shall be reworked and re-compacted until it meets the specified density requirements as determined by the Engineer.

D. Additional tests made as a result of non-compliance shall be at the Contractor's expense.

E. The Engineer may conduct field tests to evaluate the soil-bearing capacity for all footing excavations. The Contractor shall notify the Engineer when the footing excavation is completed and shall give the Engineer ample time for the performance of the bearing capacity tests prior to continuation with construction.

2.11 CUTTING AND RESTORING EXISTING SURFACES

A. All pavement surfaces consisting of streets, driveways, alleys, etc., destroyed in connection with performing the work required under the contract shall be replaced with the same kind or better by the Contractor. The Work shall be done according to MnDOT, and CEAM specifications.

B. For a period of two (2) years following the date of acceptance of the work by the OWNER's governing body, the Contractor shall promptly patch, maintain, repair, and/or replace any pavement, curb, or sidewalk which settles or becomes damaged due to settlement or defective materials or workmanship. If a serious settlement has occurred, the pavement, curb, or sidewalk shall be removed and the sub-base and/or base course restored to the proper grade before restoration of the surface course.

C. All damages or claims resulting from improper maintenance of the roadway shall be borne entirely by the Contractor.

PART 3 -- EXECUTION

3.1 STRUCTURE, ROADWAY, AND EMBANKMENT EXCAVATION

A. **General:** Except when specifically provided to the contrary, the excavation shall include the removal of all materials of whatever nature encountered, including all obstructions of any nature that would interfere with the proper execution and completion of the work. The removal of said materials shall conform to the lines and grades shown or ordered. Unless otherwise provided, the entire construction site shall be stripped of all vegetation and debris, and such material shall be removed from the site prior to performing any excavation or placing any fill. The CONTRACTOR shall furnish, place and maintain all supports and shoring that may be required for the sides of the excavations and all pumping, ditching, or other measures for the removal or exclusion of water, including taking care

of stormwater, groundwater, and wastewater reaching the site of the work from any source as to prevent damage to the work or adjoining property. Excavations shall be sloped or otherwise supported in a safe manner in accordance with applicable State safety requirements and the requirements of OSHA Safety and Health Standards for Construction (29CFR1926).

3.2 PIPELINE AND UTILITY TRENCH EXCAVATION

A. **General:** Unless otherwise shown or ordered, excavation for pipelines and utilities shall be open-cut trenches. Trench widths shall be kept as narrow as is practical for the method of pipe zone densification selected by the CONTRACTOR but shall have minimum and maximum widths as shown in the plans.

B. **Open Trench:** The maximum amount of open trench permitted in any one location shall be 500 feet, or the length necessary to accommodate the amount of pipe installed in a single day, whichever is greater. All trenches shall be fully backfilled at the end of each day or, in lieu thereof, shall be covered by heavy steel plates adequately braced and capable of supporting vehicular traffic in those locations where it is impractical to backfill at the end of each day. The above requirements for backfilling or use of steel plates will be waived in cases where the trench is located further than 100 feet from any traveled roadway or occupied structure. In such cases, however, barricades and warning lights meeting OSHA requirements shall be provided and maintained.

C. **Over-Excavation:** When ordered by the ENGINEER, whether indicated in the drawings or not, trenches shall be over-excavated beyond the depth shown. Such over-excavation shall be to the depth ordered. The trench shall then be backfilled to the grade of the bottom of the pipe. All work specified in this Section shall be performed by the CONTRACTOR when the over-excavation ordered by the ENGINEER is equal to or less than 6 inches below the limits shown. When the over-excavation ordered by the ENGINEER is greater than 6 inches below the limits shown, additional payment will be made to the CONTRACTOR for that portion of the work, which is located below said 6-inch distance.

3.3 EXCAVATION IN THE VICINITY OF TREES

A. Except where trees are shown to be removed, trees shall be protected from injury during construction operations. No tree roots over 2 inches in diameter shall be cut without the express permission of the ENGINEER. Trees shall be supported during excavation by any means previously reviewed by the ENGINEER.

3.4 BACKFILL - GENERAL

A. Backfill shall not be dropped directly upon any structure or pipe. Backfill shall not be placed around or upon any structure until the concrete has attained sufficient strength to withstand the loads imposed. Backfill around water retaining structures shall not be placed until the structures have been tested, and the structures shall be full of water while backfilling is being placed.

B. Except for drain rock materials being placed in over-excavated areas or trenches, the backfill shall be placed after all water is removed from the excavation.

3.5 BACKFILLING UNDER PIPE

A. All trenches shall be backfilled by hand from the bottom of the trenches to the centerline of the pipe with granular backfill material placed in 3-inch layers and compacted by tamping. Backfilling material shall be deposited in trenches for the full width on each side of the pipe, fittings, and appurtenances simultaneously.

3.6 BACKFILLING OVER PIPE

A. From the centerline of pipe, fittings, and appurtenances to a depth of one foot above the top of the pipe, trenches shall be backfilled by hand or by approved mechanical methods. The CONTRACTOR shall use special care in placing this portion of the backfill so as to avoid damaging or moving the pipe.

3.7 BACKFILLING TO GRADE

A. From one foot above the pipe to the grade shown in the drawings or specified herein, trenches shall be backfilled by hand or by approved mechanical methods.

3.8 BACKFILL UNDER EXISTING OR PROPOSED PAVEMENT, UTILITIES, OR WALKS

A. Where the excavation is made through existing or proposed pavements, curbs, driveways or sidewalks or under existing utilities where such structures are undercut by the excavation, the entire backfill to the subgrade of the structures shall be made in 6-inch lifts with mechanically compacted granular backfill material as specified in Paragraph 2.4 and 2.7.

**** END OF SECTION ****

SECTION 31 23 19 - DEWATERING

PART 1 -- GENERAL

1.1 GENERAL

A. The Contractor shall receive approval from the Engineer before undertaking any dewatering work. The Contractor shall consult Appendix A for soils and anticipated water level information.

1.2 DEWATERING COSTS

A. All costs associated with dewatering operations shall be included in the bid price.

PART 2 -- MATERIALS (NOT USED)

PART 3 -- EXECUTION

3.1 DISCHARGE OF WATER

A. The dewatering operations shall be done in a manner so as to protect adjacent waterways and property.

3.2 PLACEMENT OF DRAIN ROCK

A. The Contractor shall furnish and place drain rock as necessary to keep the bottom of the excavation dry and workable. The rock shall be compacted to the densities as specified for the fill material location.

**** END OF SECTION ****

SECTION 32 10 00 - ROADS, WALKS, AND CURBS

PART 1 -- GENERAL

1.1 SUMMARY

A. The work required under this section shall include all labor, equipment, appliances, and materials required to construct the sidewalks, curb and gutters, drive, and parking areas as shown on the plans and/or stated in these specifications.

1.2 REFERENCE SECTION

A. The 2020 Minnesota Department of Transportation (MnDOT) "Standard Specifications for Construction." The numbers in parentheses in the following provisions refer to the section number of the above-referenced specification.

B. The City Engineers Association of Minnesota (CEAM) "The Standard Utilities Specification" 2018 Edition.

PART 2 -- PRODUCTS

2.1 GEOTEXTILE FABRIC

A. Stabilizing fabric shall conform to MnDOT 3733, Type V (Marafi 600x or approved equal). The fabric is to be laid in the direction of construction traffic (longitudinal joint). Fabric panels shall be overlapped, both side-to-side and end-to-end, by 3 feet or sewn. Fabric shall be placed at a distance of one foot (1') behind the back of the curb.

2.2 AGGREGATE BASE (2211)

A. The aggregate base shall be Modified Class 5 with the following gradation:

Sieve Size	Percent Passing
2"	100
1-1/2"	95-100
1"	60-85
1/2"	30-65
#4	20-50
#10	15-40
#200	5-10

B. Compaction of the base shall be by the method of ordinary compaction.

C. Delete 2211.4 and 2211.5. The costs shall be included in the lump sum bid price.

2.3 PLANT-MIXED BITUMINOUS PAVEMENT (MNDOT 2360)

A. Bitumen plant shall be certified plant by the State Transportation Department. The supplier shall have sufficient testing facilities and qualified personnel, including Certified Technicians. If requested by the Engineer, the required tests shall be performed in a timely manner and with a good quality control program.

B. MnDOT Specification Section 2360, Plant Mixed Asphalt Pavement, shall apply to the construction of plant-mixed bituminous surfacing, except as modified herein. A copy of Standard Specification 2360 is available from the Engineer upon request.

1. MnDOT Section 02360.6B5: The maximum payment factor for density is 100%.

2. MnDOT Section 02360.7C (pavement smoothness) is hereby DELETED.

C. Unless noted otherwise, the provisions in this Section are in addition to the referenced specification.

2.4 MATERIALS

A. Bituminous material for the mixture shall be PG 58-28 asphaltic cement.

B. No recycled materials will be allowed in the bituminous wearing course.

C. The wear mix shall be produced with gradation 3 aggregate for lifts of 1-1/2" and more and shall be produced with gradation 4 aggregate for lifts of less than 1-1/2".

D. A MnDOT-approved mix design for the aggregate source being used shall be submitted to the ENGINEER at least five (5) days prior to beginning the asphalt paving. If no approved mix design is available, the CONTRACTOR shall employ an independent testing laboratory, at his own expense, to perform the mix design. Suggested mixes are as follows:

Base - SPNWB230B
Wear - SPWEA230B

E. Compaction shall be obtained by the Ordinary Compaction Method.

F. Section 2331.3H, paragraph two (2) is modified in that the CONTRACTOR is required to use the self-propelled pneumatic tire roller as an intermediate roller for the purpose of achieving a tighter surface.

G. All bituminous pavement thickness shall conform to the requirements of the Plan. The non-wear course shall be constructed with a maximum deviation of plus or minus 1/2" from the planned compacted thickness. The surface course shall be constructed with a maximum deviation of plus or minus 1/4" from the planned compacted thickness.

2.5 BITUMINOUS TACK COAT (2357)

A. Bituminous tack coat shall be constructed in accordance with the provisions of 2357, except as modified below.

B. The bituminous materials for a tack coat shall be CRS-1 or CRS-2.

C. The contact surface of all field structures, including concrete curb and gutter and existing pavement surfaces, shall be given a tack coat as specified. The tack coat shall be applied between all bituminous lifts.

PART 3 -- EXECUTION

3.1 EXCAVATION AND EMBANKMENT (2105)

A. Excavate the area to the elevation required.

B. The CONTRACTOR shall use selected material from the excavation for embankment and backfilling operations. All excess excavated material shall be disposed of by the CONTRACTOR at the CONTRACTOR'S expense.

C. Compaction of the subgrade and embankment shall be by the method of ordinary compaction.

D. Topsoil shall be salvaged from the excavation for backfilling.

3.2 SUBGRADE PREPARATION (2112)

A. The CONTRACTOR shall scarify, shape and compact the upper twelve (12) inches of the subgrade adding water or drying as may be necessary to give uniform and desired density.

3.3 APPLICATION OF WATER (2130)

A. The CONTRACTOR shall apply water as may be required to obtain the proper compaction for the subgrade. The application of the water shall be considered incidental to the construction of the project.

B. Delete 2130.4 and 2130.5.

3.4 GEOTEXTILE CONSTRUCTION REQUIREMENTS

A. Prior to installing geotextile fabric, the prepared subgrade surface shall be relatively smooth and free of stones, sticks, or other debris or irregularities that could puncture the geotextile.

B. If multiple pieces of geotextile are required, adjacent strips shall be field or factory sewn with “J” stitching. In lieu of sewing, an 18” strip overlap is permitted, provided there is no potential for the geotextile strips to separate.

C. Wrinkles and folds in the geotextile shall be removed by stretching and staking, as required.

D. The geotextile shall be secured to prevent displacement during subsequent operations.

E. No traffic or construction equipment will be permitted to operate directly on the geotextile.

F. Once the geotextile is placed and prior to the placing of aggregate cover, the Contractor shall allow the Engineer sufficient time to conduct a personal observation of the geotextile to determine that no holes, rips, tears, or similar defects have occurred and that sewing/overlap have been properly installed. All defects determined during the observation shall be patched or replaced prior to placing aggregate cover.

G. The aggregate cover shall be end dumped onto the geotextile. The initial deposit of material may be graded to the design thickness, but at no time shall equipment be allowed on the geotextile with less than eight (8) inches of aggregate cover. Following the compaction of the initial layer, all remaining material shall be placed as specified.

H. Construction shall be conducted parallel to the road alignment. Vehicular turning shall not be allowed on the first lift of cover material unless approved by the Engineer. All ruts that form during the construction shall be immediately filled to maintain the minimum aggregate cover.

I. Unless otherwise shown on the plans, the geotextile fabric shall be placed to the back of the curb or to the inside edge of the edge drain filter trench, whichever is closest to the centerline of the roadway.

3.5 PLANT-MIXED BITUMINOUS PAVEMENT CONSTRUCTION REQUIREMENTS

A. Saw cut the adjacent asphalt surface prior to construction of the bituminous surface course to obtain a clean, vertical, solid edge.

3.6 FIELD QUALITY CONTROL

A. A nuclear density meter and operator shall be provided by the Contractor at the beginning of each course for each typical section of each street, to establish the appropriate rolling patterns.

B. Testing:

Quantity Mixture Type	REQUIRED CONTRACTOR TESTING			OWNER ARRANGED INDEPENDENT ASSURANCE TESTING			
	VMA and Air Voids	Gradation	Spot Check	VMA and Air Voids	Gradation	Spot Check	Extraction
0-500 Ton	2	1	1	1	1		1
500-1000 Ton	3	1	1	1	1		1
1000+ Ton	4 first day 1/1000 ton thereafter, with min. 2/day	2/day	2/day	1	1	1	1

1. Contractor shall send a copy of the testing results to the Engineer.
2. Should any of the specified tests fail, the Contractor shall notify the Engineer immediately and shall arrange and pay for additional test as may be necessary to satisfy the Engineer that the requirements have been met.

**** END OF SECTION ****

SECTION 32 92 00 - SOIL PREPARATION, SEEDING, AND SODDING

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. Work under this section shall include all labor, equipment, materials, and services specified or incidental necessary to complete all work of soil preparation, fine grading, seeding, planting, fertilizing, sodding, and any other special items shown in drawings or specified herein.

B. All materials shall be the best available, and samples shall be submitted for inspection. Samples shall be stored on-site until the furnishing of materials is completed. Delivery may begin on approval of samples submitted, or as directed. Material samples shall include fertilizers, manure, seeds, erosion control matting, and plants.

C. There shall be at least 4-inches of topsoil present. If the topsoil stockpiled at the site is insufficient, additional topsoil meeting the specification shall be imported.

PART 2 -- PRODUCTS

2.1 TOPSOIL

A. Topsoil shall meet the following requirements:

	Minimum (%)	Maximum (%)
Material Passing 2.00 mm Sieve	85	-
Clay	5	30
Silt	10	70
Sand & gravel	10	70
Organic Matter	3	20
pH	6.1	7.8

2.2 FERTILIZER

A. The fertilizer shall be 20-10-10 (N/P/K) content commercial fertilizer conforming to State fertilizer laws. This mixture shall be delivered to the site, plant-mixed to ensure proper homogenization with the manufacturer's guaranteed analysis attached. Fertilizer shall be applied at 400 lbs/acre unless recommended otherwise by the seed supplier.

2.3 GRASS SEED MIXTURE

A. The grass seed mixture shall be either MnDOT Mixture 25-131 or 25-142, depending on the period of application. The application rate shall be specified in Table 2575-1 "Seed Mixture Application Rate".

B. The testing purity and germination shall meet MnDOT specification 3876.2C.

C. The CONTRACTOR shall furnish the suppliers a guaranteed statement of the composition of mixture and percent of germination.

2.4 SOD

A. General

1. Sod shall consist of densely-rooted bluegrass or other approved permanent turf grasses.

2. The sod shall be cut in uniform strips of not less than 12-inches in width and to a uniform thickness of 3/4-inch or more as necessary so that practically all of the dense root system will be retained and exposed on the bottom side of the sod.

3. When the sod is cut, it shall be sufficiently moist to withstand exposure and handling during the transplant operations. The sod shall have been raked free of debris and the top growth trimmed to a height of approximately 2-inches.

4. All sod furnished shall be in acceptable condition upon delivery to the worksite. The sod strips shall not have dry or dead edges upon delivery. Between June 1 and September 15, sod shall not be cut more than 24 hours in advance of delivery.

B. Lawn and Boulevard Sod

1. Lawn and boulevard sod shall be a high-quality type with a lush appearance, dense, have a uniform texture, and bright color throughout. The sod shall be weed-free and shall contain no more than 1/4-inch of thatch over the base soil. At least two-thirds (2/3) of the grasses, as determined by initial seeding proportions, shall be of acceptable improved type Kentucky bluegrass varieties. Acceptable varieties include Adelphi, Monopoly, Aspen, America, Baron, Glade, Columbia, Eclipse, Fylking, Touchdown, Merit, Nassau, Midnite, and Victa.

PART 3 -- EXECUTION

3.1 PROCEDURE

A. Work procedures shall follow customary practice and shall commence as soon as the site is available and as directed by the Engineer and as soon as weather conditions permit.

3.2 FINISH GRADE

A. Finish grades, within this contract, shall be those shown on the plans and may have a tolerance of 0.1 foot. Where no grades are shown, areas shall have a smooth and continual grade between existing or fixed controls (such as walks, curbs, and elevations at steps of buildings) and elevations shown on plans. All finish grades shall meet the approval of the Engineer.

B. Finish grading shall consist of uniformly and thoroughly cultivating soil to a minimum of 6 inches by approved power equipment. Areas inaccessible to power equipment shall be cultivated by hand.

C. After tilling, all areas shall be brought to uniform grade by the use of a Bobcat Landscape Rake, New Holland Auto Rake, or equal power equipment, or hand raking. Remove stones or foreign matter over two (2) inches in diameter from the top two (2) inches of soil.

D. Soil adjacent to wood headers and paved areas shall be finished at one inch below the top of headers or pavement.

E. Grade lawn areas to finish grades, filling as needed or removing surplus dirt and floating areas to a smooth uniform grade as indicated on the plans. All lawn areas shall slope to drain.

3.3 SOIL CONDITIONING (LIME)

A. Lime, if required, shall be uniformly applied in the amount of 8.5 lbs/1000 sq. ft. after finish grades are established and prior to planting and shall be incorporated in the soil by one good irrigation.

3.4 SODDING

A. Areas to be sodded are shown on plans. Sodding shall be in conformance with MnDOT Standard Specifications for Construction 2575.

3.5 SEEDING

A. Plant grass in all areas where construction activity has disturbed the natural grass cover or where shown on plans.

B. Prior to seeding, the Contractor shall sufficiently water, float, and roll lawn areas so as to establish a smooth, uniform, reasonably firm, debris-free surface suitable for seeding.

C. Sow seed at a rate of two (2) pounds of mixture per 1,000 square feet of lawn area, and rake lightly. Water thoroughly with a fine spray.

D. Following the application of mulch, seeded areas shall be rolled with a 200 lb. roller. Mulch shall be MnDOT Type 1 (MnDOT 3882). Mulch application rate at 2 tons/acre. “Wastewater Only” hay or straw mulch shall not be allowed.

E. Seeding shall be undertaken during one of two periods: July 20 through September 15 or April 1 through June 10.

3.6 RECONDITIONING EXISTING LAWNS

A. Recondition existing lawn areas damaged by the CONTRACTOR’s operations, including storage of materials and equipment and movement of construction and delivery vehicles. All areas requiring minor regrading also shall be reconditioned.

B. Provide fertilizer, seed, and topsoil as specified herein to provide a satisfactorily reconditioned lawn.

3.7 MAINTENANCE

A. Begin maintenance immediately after planting.

B. Seeded areas shall then be watered with a fine spray as required until a full stand of turf has been established and finally accepted but in no case less than 90 days after planting.

C. Maintain lawns by watering, fertilizing, weeding, moving, trimming and other operations such as rolling, re-grading and replanting as required to establish an acceptable lawn free of bare areas.

**** END OF SECTION ****

SECTION 33 00 00 - SITE UTILITIES

PART 1 -- GENERAL

1.1 SUMMARY

A. The work required under this section consists of the furnishing and installation of all underground piping, including the excavation of the trench, piping, and appurtenances, backfill, and compaction of the trenches, together with related items necessary to complete the project as shown on the Plans and described in these Specifications.

B. The piped utilities and drainage work includes, but is not limited to, the following major items:

1. Watermains
2. Gravity sewers

1.2 SPECIFICATION REFERENCE

A. The specification reference to be used in this section shall be "Standard Utilities Specifications", 2018 Edition, as published and distributed by the City Engineers Association of Minnesota.

B. The numbers in parenthesis following a paragraph enumeration indicate the article of the "Standard Utilities Specifications" being supplemented or modified.

PART 2 -- PRODUCTS

2.1 MATERIALS

A. Open Cut Sewer Pipe and Fittings

1. All pipes and fittings must be laid on a continuous granular bed. Installation must comply with ASTM D2321.
2. Solid Wall Polyvinyl Chloride (PVC) Pipe

(a) 4" through 6" Diameters: Smooth-walled polyvinyl chloride pipe and fittings shall conform with the requirements of ASTM D-3034 for the Standard Dimension Ratio (SDR) of 26 unless otherwise specified on the plans.

(b) 8" through 15" Diameters: Smooth-walled polyvinyl chloride pipe and fittings shall conform with the requirements of ASTM D-3034 for the Standard Dimension Ratio (SDR) of 35 for depths of less than 20 feet unless otherwise specified on the plans.

(c) Over 15" Diameters: Smooth-walled polyvinyl chloride pipe and fittings shall conform with the requirements of ASTM F679 with a minimum wall thickness for a minimum pipe stiffness of 46.

(d) Wyes: All wyes shall be heavy wall and shall conform with the requirements of ASTM D-3034 for the Standard Dimension Ratio (SDR) of 26, unless otherwise specified on the plans.

(e) The connection shall be push-on with elastomeric gasketed joints, which are bonded to the inner walls of the gasket recess of the bell socket.

(f) The pipe grade used shall be resistant to aggressive soil and corrosive substances in accordance with the requirements of ASTM D-543.

B. Watermain and Process Pipe Materials (2611.2A1)

1. The ductile iron pipe shall be provided with slip-on joints and shall be as specified in Section 40 23 00 except for the thickness, which shall be Class 52. All joints, including fittings, shall be furnished with conductivity strips. Pipes and fittings shall be encased in polyethylene encasement per ANSI/AWWA C105. A “Certificate of Compliance” shall be furnished if requested, stating that the materials furnished have met the required specifications.

2. Ductile iron fittings shall be mechanical joints with a pressure rating of not less than 250 psi. All below-grade fittings, valves, and hydrants shall be secured with Cor-Blue T-Bolts as manufactured by NSS Industries or equal.

3. All pipe and fittings shall be cement-lined and have a bituminous coating or be coated with a 6-8 mills nominal thickness fusion bonded epoxy conforming to the requirements of ANSI/AWWA C550 and C116/A21.16. A “Certificate of Compliance” shall be furnished, if requested, stating that the material has met the required specifications.

4. Mechanical Class 350 ductile iron cement-lined fittings shall be used. Adaptors, backup rings, and oversize sleeves shall be provided for transitions and connections to dissimilar types of watermain pipe materials. All watermain sleeve fittings shall be a long mechanical joint.

5. All fittings, valves, hydrants, and retaining rods shall be protected by using sacrificial zinc anode caps such as 175P190 Protecto Caps as manufactured by Ebaa Iron or an approved equal. Contractors shall supply 2 Protecto Caps per mechanical joint gland installed.

6. Polyvinyl Chloride (PVC) pressure pipe conforming to the current requirements of AWWA C900 (DR 18) for pipe diameters 4” through 12” or AWWA C905 (DR 25) for pipe diameters 14” through 24”. The pipe shall be manufactured in cast iron outside diameters and shall have an integral bell and spigot with an elastomeric gasket conforming to ASTM D3139. The pipe and components shall meet the requirements of ANSI/NSF 61 for the conveyance of potable water.

C. Valve and Valve Housings

1. All gate valves on potable water service shall be resilient seat, non-rising bronze stem conforming to the requirements of AWWA C-500 or C-509, and designed for a 200 psi working pressure. The valve shall open left and be fitted with a 2-inch square operating nut. All internal metal surfaces shall be coated with thermosetting epoxy coating, a minimum of 4 mils thick, to protect all seating and adjacent surfaces from corrosion and to prevent the build-up of scale or tuberculation. One valve wrench 8 feet in length with a crossbar handle for a two-inch square valve operating nut shall be furnished.

2. Valve boxes shall be cast iron of either the two or three-piece style. The assembly shall be of such a length as required for seven feet of cover. The top section shall be screw-type, allowing for adjustment to grade. The valve boxes shall be furnished and installed complete with base and cover and shall be furnished with a stay-put cover with raised letters indicating “WATER”. The shaft shall be 5-1/4 inches in diameter.

3. All bolts, nuts, and washers used for valves, valve housings, and valve operator assemblies shall be 304 stainless steel.

4. All valve box assemblies shall be furnished with a valve umbrella anchorage assembly. The valve umbrella anchorage assembly shall be manufactured by Adaptor, Inc., Oak Crest, WI, or equivalent.

5. High-Density Polyethylene valve housings will not be allowed.

D. Restrained Joint Retainer Glands

1. Where watermain joint restraint is required by the use of retainer glands, the retainer glands shall be American, US Pipe, or Mega-Lug type, ductile iron, and be designed to withstand 150 psi unless noted otherwise. All nuts, bolts, and tie rod-type restraints shall be 304 stainless steel.

E. Metal Sewer Castings (2621.2B)

1. Sanitary sewer manhole castings shall be Neenah R-1733 or equal, and shall conform to MnDOT 700-7 frame with 712 cover. The sanitary sewer covers shall be self-sealing and gasketed with a concealed pickhole.

F. Manholes (2621.2C)

1. Sewer manholes shall be MnDOT Design F. Sanitary sewer manholes shall have a precast integral base slab and bottom section with an integrally cast sleeve seal, according to Standard Plate No. 4007C. Manhole joints shall be gasketed. Manhole steps shall be steel-reinforced plastic per Standard Plate 4180G.

2. Cement shall meet ASTM C595 Type 1L-MS requirements. Testing for compliance shall be by ASTM Method C452.

3. Chimney seals accepted for use, when shown in the plans, shall be one of the following listed as the standard of quality:

(a) Cretex or approved equal, interior only.

PART 3 -- EXECUTION

3.1 CONSTRUCTION

A. All manholes and catch basins shall be furnished and constructed as shown in the Drawings.

B. The annular space around the existing and new sewer entrances into the manhole shall be constructed “watertight” using non-shrink grout.

C. Exercise care in removing existing structures to minimize damage to existing sewers which must be reconnected to the new manhole. Excavate along the existing sewer to a point of solid foundation and good pipe. Make the connection between the new and existing sewer with an appropriate Fernco coupler.

D. Backfill around all manholes with selected excavated material. Compact the material in 18-inch lifts by the Method of Ordinary Compaction - MnDOT Spec. 2451.3D.

E. All manholes shall be adjusted to the final grade as directed by the ENGINEER.

F. The sewer pipe shall be installed through the manhole whenever possible. When the pipes join at other than 90°, cut the pipe to butt the ends together within the structure. Precast inverts are required.

3.2 PIPE LAYING

A. The type of pipe to be used shall be as shown on the plans. All pipes shall be laid and maintained to the required line and grade.

B. Proper implements, tools, and facilities satisfactory to the ENGINEER shall be provided and used by the CONTRACTOR for the safe and convenient prosecution of the work.

C. Cutting of pipe shall be done in a neat and workmanlike manner without damage to pipe or lining. Pipe shall be handled properly. Materials must at all times be handled with care to prevent damage. Under no circumstances will the pipe be dropped or damaged. Hook ends shall not be used for installing or removing the pipe.

D. The pipe and fittings shall be inspected for defects and, while suspended above grade, be rung with a light hammer to detect cracks.

E. Every precaution shall be taken to prevent foreign material from entering the pipe while placed in the line. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe.

F. After placing a length of pipe in the trench, the spigot end shall be centered in the bell, and the pipe forced home and brought to the correct line and grade. The pipe shall be secured in place with approved backfill material tamped under it except at the bells. Pipe joint deflection shall not exceed the manufacturer's recommendations.

G. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or other means approved by the ENGINEER.

H. Pipe shall be laid with bell ends facing in the direction of laying unless directed otherwise by the ENGINEER.

I. No pipe shall be laid in water or when, in the opinion of the ENGINEER, trench conditions are unsuitable.

3.3 INSTALLATION OF PIPE AND FITTINGS

A. Aligning and Fitting of Pipes

1. The Contractor, together with the utility's personnel, shall jointly examine and operate all curb stops and mainline valves prior to final acceptance.

2. Blocking and Anchoring of Pipe

(a) A thrust block of cast-in-place concrete, which covers the installed fitting, is not permitted. Pre-cast concrete thrust blocks and other restraining devices, such as adjustable rods or cables, shall be provided at all bends, tees, hydrants, and plugged crosses or wherever the watermain changes direction or dead ends. Valves shall be tied to the nearest tee.

B. Polystyrene Insulation

1. The Contractor shall install polystyrene insulation in those areas where the watermain or services may be susceptible to frost or freezing, or as directed by the Engineer.

2. Rigid foam insulation shall be placed between the watermain and storm or sanitary sewer where adequate vertical clearance cannot be maintained. The insulation shall be placed on a bed of sand, and sand shall be placed above the insulation to isolate the insulation from rocks and other sharp objects. The ultimate thickness of insulation required shall be achieved by using 2 layers of insulation, the second layer shall be placed perpendicular to the first layer, and the joints shall be offset.

3.4 FIELD JOINTS

A. Joints in buried locations shall be mechanical joint or push-on type unless otherwise indicated in the drawings.

B. Bells on wall castings and wall sleeves shall be a mechanical joint with tapped holes for tie rods or stud bolts.

C. All other joints shall be flanged unless otherwise indicated in the drawings.

3.5 MECHANICAL JOINTS

A. Mechanical joints shall be carefully assembled in accordance with the manufacturer's recommendations. If effective sealing is not obtained, the joint shall be disassembled, thoroughly cleaned, and reassembled.

B. Over-tightening bolts to compensate for poor installation practice will not be permitted. Anchored mechanical joints, A.M.J., with retainer glands or other suitable means of joint restraint shall be used where indicated in the drawings.

C. The holes in mechanical joints with tie rods shall be carefully aligned to permit the installation of the tie rods.

D. In flange and mechanical joint pieces, holes in the mechanical joint bells and the flanges shall straddle the top (or side for vertical piping) centerline. The top (or side) centerline shall be marked on each flange and mechanical joint piece at the foundry.

3.6 PUSH-ON JOINTS

A. The pipe manufacturer's instructions and recommendations for proper jointing operations shall be followed.

B. All joint surfaces shall be lubricated with heavy vegetable soap solution immediately before the joint is completed. Lubricant shall be suitable for use in potable water, shall be stored in closed containers, and shall be kept clean.

C. Each spigot end shall be suitably beveled to facilitate assembly.

D. Pipe ends for restrained joint pipe shall be prepared in accordance with the pipe manufacturer's recommendations.

3.7 MANHOLE STRUCTURE

A. Connect to Existing Sanitary Sewer

1. When a connection to an existing sanitary sewer is made at an existing or proposed manhole, the Contractor shall expose and verify the elevation of the existing sewer prior to laying any sanitary sewer to or from the connection point. If the elevation of the existing sewer does not match the elevation shown on the plans, the Contractor shall notify the Engineer, at which time the Engineer may adjust the proposed grades.

2. Connections to existing sanitary sewers shall be watertight.

3. Connections to existing structures shall be watertight. The installation of Cor-N-Seal boots, or equal, shall be required.

B. Raise / Lower Existing Manhole

1. Raising and/or lowering an existing manhole to meet a proposed finished rim elevation is performed when the addition and/or deletion of 2" adjusting rings will not reach a minimum of 2 rings or exceed a maximum of 6 rings. Typically, it will require: the removal of the manhole cone section or the concrete slab top; the addition, removal, or exchange of barrel sections; the

replacement of the cone section or the concrete slab top; the installation of the proper number of adjusting rings; and the replacement of the manhole casting and frame.

C. Manhole Base

1. Pre-cast bases shall be used for all manholes.
2. Integral cast base is required unless otherwise shown on the plans or approved by the Engineer.
3. Manholes shall be set on a minimum of 6 inches of compacted foundation material.

D. Miscellaneous Work

1. If concrete adjusting rings are used, they shall be set with bituminous mastic or cement mortar and shall be plastered inside and out, with a minimum thickness of 1/2-inch of mortar. A maximum of 3 individual adjusting rings shall be used. Taller 6" or 12" rings shall be used where adjustment requires more than three 2" rings.
2. If HDPE adjusting rings are permitted in Part 2 and used, the sealant material and method shall be in accordance with the manufacturer's recommendations.

3.8 HYDROSTATIC TESTING

A. Watermains and high service pump discharge piping shall be field-tested for leakage at 150 psi in accordance with the appropriate section (hydrostatic tests) of AWWA C600. Test pressure and duration shall be per AWWA C600-2017, and allowable leakage shall be determined in accordance with the formula:

$$L = \frac{S*D*\sqrt{P}}{148{,}000}$$

where factors and units are defined as follows:

L = Leakage, S = Length, in feet, D = Nominal Diameter (inches), and P = Average Test Pressure (Gauge Pressure PSI)

B. Process piping shall be field-tested for leakage at 150 psi or at a pressure approved by the Engineer in accordance with the appropriate section (hydrostatic tests) of AWWA C600.

**** END OF SECTION ****

SECTION 33 05 60 - LIFT STATION STRUCTURE

PART 1 -- GENERAL

1.1 SUMMARY

A. This section covers the furnishing of all labor, materials, tools, equipment, and performances of all work and services necessary or incidental to lift station construction as indicated in the drawings or as specified herein.

B. The minimum lift station structure has been sized to accommodate the volume of storage required and the space required for the make and model pump specified, including all appurtenances necessary for a complete operational system. Should a Bidder wish to substitute another make and model pump as an equal, any change necessary in the design of the pump station to accommodate the substitution must be included in the original bid price for the lift station. No additional compensation shall be granted.

C. At the time of the startup of the new lift station, the Contractor shall supply clean water as required to test pumps, controls, and all other equipment.

1.2 METHOD OF MEASUREMENT AND PAYMENT

A. Measurement and compensation for the following items shall be paid according to the referenced specification or as modified below:

1. Wet Well/Valve Vault

(a) Measurement and payment for all materials, equipment, supplies, and labor required to construct a fully operational lift station, complete, shall be at the lump sum bid price of the lift station. The amount bid includes all labor and material required to complete the structure and operating equipment, as specified, including all pumps, piping, electrical equipment, and wiring to the utility power source and standby generator (if provided) complete in place.

2. Rock Excavation

(a) Since the extent of rock excavation work required is unknown, the Owner reserves the right to increase or decrease the quantities by any amount with no adjustment in unit price.

B. The furnishing and installation of specific items and/or the performance of work under certain circumstances shall not be individually paid. The costs shall be included in the price bid for the lift station, as indicated. Such items of work include but are not limited to:

1. Interference with other underground structures and utilities: Include in the price bid for the lift station.

(a) The removal and restoration, or protection of existing utilities which are shown on the plans and for which there is no bid item for removing and restoring or working around the utility.

2. Lift Station Site Preparation

(a) The unit price bid shall include all labor and materials to prepare the lift station site, including but not limited to topsoil stripping, driveway and embankment construction, grading, and compaction.

3. Unless separately itemized in the Schedule of Unit Prices, any dewatering necessary for lift station construction is to be included in the price bid for the lift station.
4. Foundation materials placed in lieu of performing necessary dewatering, include in the price bid for the lift station.
5. Locating and connecting to an existing sanitary sewer is to be included in the price bid for the lift station.
6. Maintenance of service: Include in the price bid for the lift station.
7. Establishing the foundation for the structure or placing rock to stabilize the subgrade, include in the price bid for the lift station.
8. The replacement of all material displaced due to shrinkage or loss during the excavation and backfilling operations: Include in the price bid for the lift station.
9. Delays due to other utility conflicts which result during construction are to be included in the price bid for the lift station.
10. Protecting existing improvements from damage: Include in the price bid for the lift station.
11. Protecting the inverts of other utility pipes from the accumulation of debris and soil, the removal of blockages that threatens to damage property, and/or the cleaning of both the newly constructed lines and the existing lines of all debris and soil which accumulated during the construction, is to be included in the price bid for the lift station.
12. As specified elsewhere in these Specifications, all equipment, labor, materials, supplies, fees, and permits to construct a full and operable system are to be included in the price bid for the lift station.

1.3 SPECIFICATION REFERENCES

A. Unless noted otherwise, the provisions in this section are in addition to the referenced specification.

1.4 SUBMITTALS

A. Shop drawings of the wet well and valve vault construction shall be submitted prior to their fabrication. The submittal shall indicate the pipe penetration locations in the wet well and the valve vault, and the access hatch location on the top slab.

PART 2 -- PRODUCTS

2.1 PIPE AND FITTINGS

A. Solid Wall Polyvinyl Chloride (PVC) Pipe

1. Smooth-walled polyvinyl chloride pipe and fittings shall conform with the requirements of ASTM D-3034 for the Standard Dimension Ratio (SDR) of 35.
2. The pipe grade used shall be resistant to aggressive soil and corrosive substances in accordance with the requirements of ASTM D-543.

B. Ductile Iron Pipe (DIP)

1. Ductile iron pipe shall conform to the requirements of ANSI A21.51 (AWWA C151) standard specification for centrifugally cast ductile iron pipe for water or other liquids.

2. Ductile iron pipe in exterior locations shall be provided with flanged or mechanical joint type ends as shown on the plans, and all interior ductile iron piping shall be ANSI/AWWA thickness Class 53 (minimum).

3. Ductile iron flanges shall conform to ANSI/AWWA C115 standard 125# template and shall be rated for 250 psi. Mechanical joints and push-on joints shall conform to the ANSI/AWWA C111 standard for rubber gasket joints for ductile iron and gray iron pressure pipe and fittings.

4. Unless otherwise shown on the plans, ANSI/AWWA short-body ductile iron fittings shall be furnished. Short body fittings shall conform to ANSI/AWWA C110. Flanged long radius elbows, reducing on-the-run tees, side outlet fittings eccentric reducers, and laterals shall conform to ANSI B16.1 standard specification for flanged fittings and flanges. All fittings shall be ductile iron. Compact fittings conforming to ANSI/AWWA C153/A21.53 may be supplied for mechanical and push-on joints.

5. Ductile iron pipe and fittings shall be furnished with standard bituminous interior coating. Pipe used for interior and exposed locations shall not have a bituminous exterior coating, but shall be furnished with a shop primed coating of Tnemec Primer, or equal, to facilitate painting as specified.

2.2 BOLTS AND ANCHOR BOLTS

A. Pump anchor bolts shall be 18-8 stainless steel. All nuts and bolts on the piping inside the wet well shall be 304 stainless steel. All bolts and nuts in the valve vault shall be ASTM 307 Zinc plated hex bolts. All below-grade fittings and valves shall be secured with Cor-Blue T-Bolts as manufactured by NSS Industries or equal.

2.3 GATE VALVES

A. All valves furnished and installed on the force main shall be AWWA C-509-80, non-rising stem, iron body, resilient-sealed gate valves, with a two-inch square opening nut rated for a 200-psi working pressure. These valves shall be Kennedy Ken-Seal or approved equal. All valves shall open ‘left’ unless noted otherwise.

2.4 RUBBER FLAPPER SWING CHECK VALVE

A. The rubber flapper swing check valve shall have a heavily constructed ductile iron body and cover. The body shall be a long pattern design (not wafer), with integrally cast-on-end flanges. The flapper shall be Buna-N having an “O” ring seating edge, and be internally reinforced with steel.

B. Flapper shall be easily removed without the need to remove the valve from the line. The seating surface is to be on a 45°angle requiring the flapper to travel only 35° from a closed to a fully open position for minimum head loss and non-slam closure.

C. Buna-N flapper (Hi-Strength coated fabric - coated on both sides with 70 Duro), which creates an elastic spring effect, molded internally, to assist the flapper to close against a slight head to prevent slamming.

D. An external backflow device shall be furnished.

E. Materials of construction shall be certified in writing to conform to ASTM specifications as follows:

1. Body & Cover: Ductile Iron - ASTM A296

2. Flapper: Buna-N

3. Exterior Paint: Phenolic Primer Red Oxide

F. Manufacturer

1. APCO Series 100
2. Valmatic
3. Milliken

2.5 AIR AND VACUUM RELEASE VALVES

A. The Combination Air Valve shall be designed to exhaust large amounts of air during filling, release small amounts of accumulated air during operation, and admit large amounts of air upon impending vacuum during draining.

B. The valve shall be float operated, and both the Air & Vacuum and Air Release functions shall be housed in a single body. The body and cover shall be housed in a single body. The body and cover shall be of cast iron conforming to ASTM A126, Class B, or ductile iron ASTM A536 grade 65-45-12. All leverage mechanism parts and the float shall be stainless steel. No plastic or bronze parts shall be permitted. The large and small orifice seats shall be Buna-N and shall be renewable.

C. The Combination Air Valve shall be supplied with “Flushing Attachments” to allow periodic flushing of sediment, grease, and solids. Attachments consist of an inlet isolating valve, bronze blow-off, and flushing valves.

D. Manufacturers or Equal

1. APCO Series 443 (verify series) SCAV
2. Golden Anderson Figure 942
3. Valmatic
4. Henry Pratt WWCV Wastewater Combination Air Valves

2.6 FLANGED COUPLING ADAPTERS (FCA)

A. Flanged coupling adapters shall be provided where indicated. CONTRACTOR may install additional FCA at no additional cost as he desires for ease of piping installation. FCA and piping shall be secured against movement with fixed supports or tie rods. FCA shall be Dresser Style 127, Rockwell/Smith-Blair Type 912, Romac or equal with anchor studs for 12 inches and under; Type 913 for 14 inches and over. Coupling Adapters shall be of cast iron construction with shop coating.

2.7 WET WELL/VALVE VAULT

A. Precast Concrete Structure

1. The pump station structure shall be constructed of Class I precast reinforced concrete with R4 joints and inside diameter, as shown on the plans. The structure base shall be integrally cast with the bottom barrel section. The base, as shown on the plans, shall be fabricated to accommodate the loading condition. The pump station structure shall be constructed as shown in the detailed drawings and in accordance with the approved shop drawings. The concrete mix shall be entrained with air content of not less than 4 percent and not more than 7 percent, Grade A concrete with a cement-water ratio of 0.50, and a minimum compressive strength of 4,000 psi at 28 days. Cement shall meet ASTM C595 Type 1L-MS requirements. Testing for compliance shall be by ASTM Method C452The precast structure shall have attained the specified design strength when delivered to the project site.

2. The top slab of the structures shall be Type 1L-MS cement precast reinforced concrete having the dimensions shown on the detailed drawings. Frames for access hatches and vent pipes shall be cast in the slab when fabricated. Cut-outs to accommodate all piping entering the wet well shall be pre-formed or pre-cut and provided with a seal or water stop to ensure a watertight connection between the pipe and the wet well. The type of seal proposed shall be submitted to the Project Engineer for approval before the installation of the wet well is undertaken.

3. Joints between barrel riser sections and the top slab shall be sealed with two strips of flexible bitumastic preformed joint compound.

4. The interior of the wet well shall be painted as specified below.

5. Aluminum or steel-reinforced plastic manhole steps similar to Neenah R-1981-J shall be provided in the lift station.

2.8 BALL VALVES

A. Ball valves shall be designed for a water-working pressure of not less than 150 psi, shall be constructed of cast iron conforming to ASTM A126. Valves shall be designed with union ends or top entry to permit removal of the valve or the internals from the line, and with end connectors designed for solvent-welding to the pipe.

B. Ball valves shall be Chemtrol (a Division of NIBCO, Inc.), Certain-Teed Products Corp., ITT Grinnell, or equal.

2.9 ACCESS HATCHES

A. Pump manufacturer to verify hatch size and location in top slab for clearance of pumps positioned as shown in the drawings. Minimum clearance of 3-inches required. Access hatches in the wet well and valve vault shall be provided with split safety gratings.

B. Door leaves a minimum 1/4-inch aluminum, diamond pattern, to withstand a live load of 300 pounds per square foot.

C. Channel frame of minimum 3-inch welded aluminum with anchor flange around the perimeter. The channel frame shall be embedded in the concrete with a minimum 6-inch cover. The overall dimension of the access hatch frame shall not exceed 3 ¾ inches beyond the clear opening on all four sides. Access hatches using angle frames will not be accepted.

D. Each door leaf is equipped with heavy-duty recessed hinges, totally enclosed spring or torsion bar operators as necessary for easy operation, a drop handle, and an automatic hold-open arm with a release handle. Locate the hold-open arm release handle such that it can be easily operated without endangering personnel.

E. Maximum hatch opening force is not to exceed 15 pounds when applied perpendicularly to the hatch edge through any part of the hatch-operating arc.

F. Each door leaf is secured with a snap-lock with a removable handle, and a padlock hasp welded to each leaf and frame.

G. Aluminum surfaces mill finished. Apply bituminous paint to the exterior of the frame in contact with concrete.

H. Mechanical Fasteners and Hardware: Series 304 stainless steel.

I. Approved Manufacturers: Halliday, Bilco, or equal.

2.10 SAFETY GRATING

A. The protective split safety grating panels shall be supplied as part of each hatch and shall be 1-1/2 in. “I” bar aluminum grating with Safety Orange powder-coated finish. Grating shall be hinged and shall be supplied with a positive latch to maintain the unit in an upright position. Grating support ledges on 300 lbs. psf loaded access covers only shall incorporate nut rail with a minimum of four (4) stainless steel spring nuts. A padlock hasp for an owner-supplied padlock shall be provided.

B. Approved Manufacturers: Halliday, Bilco, or equal.

2.11 CASTINGS

A. The type of casting assembly to be used shall be Neenah R-1642 with Type C Lid with gasketed cover, concealed pick hole, and no lug unless otherwise specified on the plan.

2.12 CHIMNEY SEAL

A. Chimney seals accepted for use, when specified as shown in the plans, shall be one of the following listed as the standard of quality:

1. Infra-shield (exterior only)
2. Cretex (exterior or interior)

2.13 SAND BACKFILL AND ENGINEERED FILL

A. Water from areas to receive sand backfill shall be removed before commencing work, and areas shall be kept free of water during filling and compaction. All topsoil and organic materials in any area to receive Engineered Fill shall be removed to a minimum depth of 12 inches.

B. Where concrete floor slabs are to be supported on Engineered Fill, the entire surface of the fill area shall be smoothed, leveled, and compacted using heavy vibratory equipment until there is no loss of elevation. The sand fill material shall be placed in 6” deep lifts and compacted to at least 100% of the maximum density given by ASTM D698 (Standard Proctor Density). The fill shall extend beyond the edges of the footings, one foot for each foot of fill placed below the footings. The compacted lift shall be relatively smooth and level.

C. Frozen material or material containing ice or snow shall not be used for fill. Sand fill shall not be placed on soil that is frozen or covered with ice or snow. Necessary precautions shall be taken during freezing weather to prevent freezing of the sand fill during placing and compaction.

D. All debris shall be removed from the excavated areas before backfilling.

E. Excavations shall be promptly backfilled as work permits.

F. The excavated area outside of the lift station structure and valve manhole shall be filled with sand fill. Unless otherwise noted, the fill area shall be defined by a line 30°vertical plane, starting at a point at the base of the foundation. Sand fill shall be placed in 6-inch deep lifts, and each lift shall be compacted by approved methods to not less than 95% of the maximum density given by ASTM D698 (Standard Proctor Density). Compacted lifts shall be relatively smooth and level.

G. The sand fill to be used for backfilling shall be an SW clean well-graded sand (Unified Soil Classification System), free of organic impurities. The well-graded sand shall have less than 40% passing the No. 40 sieve and less than 10% passing the #200 sieve with the maximum aggregate size of 1 1/2”.

H. The Contractor shall furnish tests for all fill material prior to use from an independent testing laboratory. The testing laboratory reports shall be reviewed and approved before the material is placed. The tests are to include optimum density ASTM D698-70 and gradation.

2.14 PAINTING

A. This section shall include the furnishing of all labor and materials for the painting and finishing of the pumping station as well as described hereinafter.

B. All paints and materials furnished shall be the standard product of a reputable manufacturer. The standard products of manufacturers other than that specified hereinafter as a descriptive standard will be accepted if they are equal in composition, durability, utility, and in all other respects are equal for the purpose intended to those specified.

C. All paint shall be delivered to the site of the work in unbroken containers. Each container shall show the name of the manufacturer, date of manufacture, the designated name of the paint or formula, the color, and any special instructions for mixing or application. All mixing and tinting will be done on the premises, and no material shall be reduced or changed except as specified by the manufacturer. All paints shall be stored in a manner to prevent contamination of painting materials after containers are opened.

D. The wet well structure shall be coated as follows:

1. Tnemec Series 436 Perma-Shield FR applied to a thickness of 60-70 mils with Series 218 MortarClad applied first to cover the bug holes and make concrete pinhole free. An equivalent system from Sherwin Williams Dura-Plate 2300 and followed by CorCote FRE will be accepted. The total coating thickness shall not be less than 60 mils DFT.

E. Exposed pipe, vent pipes, valves, and fittings in the wet well and valve manhole shall be coated as follows:

1. Sandblast and/or pressure wash as required by the coating manufacturer.

2. The piping, valves, and fittings shall be coated as follows:

(a) Shall be supplied with a factory-applied prime wet. Primer coat to be touched up as needed prior to final painting. Primer shall be compatible for overcoating with any field applied coating.

(b) Apply two (2) coats of Tnemec N140F (low VOC) Pota-Pox Plus or Sherwin Williams Macropoxy 646 FCE. Total coating thickness shall not be less than 12-14 mils.

3. If optional, finished coating color(s) shall be chosen by the owner/engineer.

2.15 SIGNAGE

A. Provide a caution sign at the top of the entrance to each structure.

B. Sign shall be red and black on a white background, and shall have a minimum size of 10” x 14”, and shall read:

1. “Danger”

2. “Confined Space”

3. “Enter by Permit Only”

C. Letter shall be a minimum of one inch.

D. Caution sign shall be Lab Safety reference #179829, or equal.

PART 3 -- EXECUTION

3.1 CONSTRUCTION REQUIREMENTS

A. Temporary Service

1. If needed, the Contractor shall furnish, install and maintain equipment to bypass and control the storm and/or sanitary sewer flow around the construction zone. Failure to operate and maintain the bypass equipment could result in direct damage claims as well as consequential damage claims to the Contractor.

B. Internal and External Pipe Restraint

1. Piping shall be secured against movement with fixed supports or approved joint restraints.

2. If the structures are located on disturbed soils or where differential subsidence is a potential, provision to allow for differential settlement shall be made at the time of construction. The Contractor shall notify the Engineer of the methods to be employed before construction.

C. Connection to Sanitary Sewer

1. When a connection to a sanitary sewer is made at the lift station, the Contractor shall expose and verify the elevation of any existing sewers prior to laying any sanitary sewer to or from the connection point. If the elevation of the existing sewer does not match the elevation shown on the plans, the Contractor shall notify the Engineer, at which time the Engineer may adjust the proposed grades.

3.2 EXCAVATION

A. Interference of Underground Structures

1. If an existing utility is shown on the plans and there is no bid item for removing and restoring, or working around the utility, the Contractor is required to remove and restore, or protect the utility.

B. Excavation Limits and Requirements

1. The Contractor shall dewater the excavations as necessary to construct the station. Excavation may require shoring and sheeting to maintain stable slopes or facilitate dewatering.

2. The Contractor shall excavate to the limits required by safety, and adequately install the lift station structures. Oversize excavation one foot horizontally beyond the footing slab for each foot vertically that the excavation is below the footing. The area shall be protected from surface runoff. Pumps and related appurtenances shall be readily available to remove excess water.

3. Existing inverts shall be protected during construction. If debris enters the sewer, it shall be the responsibility of the Contractor to clean the sewer.

C. Preparation and Maintenance of Foundation.

1. The Contractor shall undercut the foundation one foot, smooth and compact the existing subgrade. Any areas below the base of the structure shall be backfilled with ¾-inch crushed rock.

2. If the subgrade material becomes soft or unstable during the Contractor's operations, undesirable material shall be excavated and refilled with 3/4-inch crushed rock.

3.3 BACKFILL

A. Placement of backfill adjacent to the structure shall be delayed until any field-constructed concrete has attained its design compressive strength. Any backfill placement prior to attaining this strength shall be considered the responsibility of the Contractor, who shall be liable for any resultant damage to the structure.

B. Water from areas to receive granular backfill shall be removed before commencing work, and areas shall be kept free of water during filling and compaction.

C. Where concrete floor slabs or structures are to be supported on Engineered Fill or granular fill, the entire surface of the fill area shall be smoothed, leveled, and compacted using heavy vibratory equipment until there is no loss of elevation. The sand fill material shall be placed in 6” deep lifts and compacted to at least 100% of the maximum density given by ASTM D698 (Standard Proctor Density). The fill shall extend beyond the edges of the structure, one foot for each foot of fill placed below the structure. The compacted lift shall be relatively smooth and level.

D. Frozen material or material containing ice or snow shall not be used for fill. Sand fill shall not be placed on soil that is frozen or covered with ice or snow. Necessary precautions shall be taken during freezing weather to prevent freezing of the sand fill during placing and compaction.

E. All debris shall be removed from the excavated areas before backfilling.

F. Excavations shall be promptly backfilled as work permits.

G. The excavated area outside of the lift station structure and the valve vault shall be filled with granular fill. Unless otherwise noted, the fill area shall be defined by a line 30º from the vertical plane, starting at a point at the base of the foundation. Granular fill shall be placed in 6-inch deep lifts, and each lift shall be compacted by approved methods to not less than 100 percent of Standard Proctor Density beneath structures; 98% of Standard Proctor Density beneath roadways, walks, or paved areas; and 95 percent of Standard Proctor Density around the sides of structures. Compacted lifts shall be relatively smooth and level.

H. The granular fill to be used for backfilling shall be an SW clean well-graded sand (Unified Soil Classification System), free of organic impurities. The well-graded sand shall have less than 40% passing the No. 40 sieve and less than 10% passing the #200 sieve with the maximum aggregate size of 1-1/2”.

I. The Contractor shall furnish gradation tests at their expense for all fill material prior to use from an independent testing laboratory. The testing laboratory reports shall be reviewed and approved before the material is placed. Should the material being placed be different than previously tested, the Contractor shall furnish additional gradation tests.

J. Sand backfill around lift station structure shall be capped with a one-foot minimum layer of clay and sloped away from the structure to provide good drainage.

K. If the Contractor is in doubt as to the bearing capacity of the soil at the bottom of the lift station structure or other work, he shall notify the Engineer before proceeding with his work. By failing to do this, he shall be responsible for any damage to the structure due to settlement.

3.4 PLUMBNESS AND ALIGNMENT OF WET WELL

A. Wet well shall be plumb with a deviation not exceeding 0.5% from vertical. Alignment shall be measured and recorded before backfilling is completed.

3.5 PUMP STATION COMPONENTS

A. General: Install pump station components in accordance with the manufacturer's recommendations and these specifications.

B. Pump guide rails shall be aligned perfectly vertical.

C. Discharge Base Elbow:

1. Shall be attached to flat steel fabricated base plate which rests squarely on the wet-well floor.

2. Flat base plate shall ensure the pump has a smooth surface on which to rest when lowered into position.

3. Pump discharge flange shall align with the base elbow of the base plate assembly.

4. Discharge piping shall be installed perfectly plumb.

D. Electrical Cords: Cords shall be continuous with no splices made in wiring and are to run from the pump and level controls to the control panel.

E. Float Cords: Attach weight to the cord above the float to hold the switch in place in the sump and efficiently prevent sharp bends in the cord when the float operates.

F. Electrical and Telephone Service Entrance:

1. CONTRACTOR is responsible for costs of getting electric service and telephone service to the pump station site.

2. Contractor is responsible for installation of necessary conduit for and coordination of electrical service from the utility pole to the service entrance equipment in the control panel and telephone service installation with the respective utility companies.

3. Electrical work shall be completed in accordance with NEC and any applicable local ordinances.

4. Grounding of electrical and telephone service for lift station shall be in accordance with Article 250 of NEC.

**** END OF SECTION ****

SECTION 43 00 00 - EQUIPMENT GENERAL PROVISIONS

PART 1 -- GENERAL

1.1 THE REQUIREMENTS

A. The Contractor shall furnish all equipment not designated as OWNER furnished in the bidding documents.

B. The Contractor shall install all equipment complete with necessary appurtenances to provide a complete and operable system.

C. The Contractor shall furnish complete shop drawings of all mechanical equipment, together with appurtenant piping, valves, and controls.

D. Each item of equipment shipped shall have a legible identifying mark or tag corresponding to the equipment number shown or specified for the particular item.

E. All equipment shall be designed to meet federal and state noise levels and safety requirements.

F. The Contractor shall furnish and install all oils and lubricants required for initial equipment start-up.

G. Contractor's bid price shall include the costs of any necessary manufacturer's representatives which may be required for equipment installation and start-up. Unless otherwise specified, a manufacturer's field representative shall be provided for a minimum of 8 hours of start-up services for each piece of process equipment.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01 33 00 - Submittals

B. Section 26 24 20 - Electric Motors

C. Section 26 90 02 - Instrumentation and Control

1.3 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Codes:

1. International Building Code (IBC) - Latest Edition

2. National Electric Code ANSI/NFPA 70

3. References herein to "Plumbing Code" or NPC shall mean the National Plumbing Code of the American Public Health Association and the American Society of Mechanical Engineers (APHA/ASME). The latest edition of the codes, as adopted as of the date awarded by the agency having jurisdiction, shall apply to the work herein.

B. Commercial Standards

All equipment, products, and their installation shall be in accordance with the following standards, as applicable, and as specified in each Section of these specifications:

1. American Society for Testing and Materials (ASTM).

2. American Public Health Association (APHA).

3. American National Standards Institute (ANSI).

4. American Society of Mechanical Engineers (ASME).
5. American Water Works Association (AWWA).
6. American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE).
7. American Welding Society (AWS).
8. National Fire Protection Association (NFPA).
9. Federal Specifications (FS).
10. National Electrical Manufacturers Association (NEMA).
11. Manufacturer's published recommendations and specifications.
12. General Industry Safety Orders (OSHA).

The following standards have been referred to in this Section of the specifications:

ANSI B16.1-98	Cast Iron Pipe Flanges and Flanged Fittings Class 25, 125, 250, and 800.
ANSI B16.5-96	Pipe Flanges and Flanged Fittings, Steel, Nickel Alloy, and Other Special Alloys.
ANSI B46.1-2009	Surface Texture.
ANSI S12.6-2008	Method for the Measurement of the Real-Ear Attenuation of Hearing Protectors.
ANSI/ASME B1.20.1-2005	General Purpose Pipe Threads (Inch).
ANSI/ASME B31.1-2007	Power Piping.
ANSI/AWWA D100-2006	Welded Steel Tanks for Water Storage.
AWWA C206-2011	Field Welding of Steel Water Pipe.
ASTM A 48-2003	Specification for Gray Iron Castings.
ASTM A 108-2007	Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality.

1.4 CONTRACTOR SUBMITTALS

A. Shop Drawings: The CONTRACTOR shall furnish complete shop drawings for all equipment specified in the various Sections, together with all piping, valves, and controls for review by the ENGINEER in accordance with Section 01 33 00 entitled "Submittals".

B. O & M Manuals: Complete and descriptive operation and maintenance manuals shall be submitted in accordance with Section 01 33 00 entitled "Submittals".

C. Tools: The CONTRACTOR shall supply one complete set of special wrenches or other special tools necessary for the assembly, adjustment, and dismantling of the equipment. All tools shall be of best-quality hardened steel forgings with bright, finished heads, with work faces dressed to fit nuts. The set of tools shall be neatly mounted in a labeled toolbox of suitable design provided with a hinged cover.

D. Spare Parts: The CONTRACTOR shall obtain and submit from the Supplier a list of suggested spare parts for each piece of equipment. After approval, he shall furnish such spare parts suitably packaged, identified with the equipment number, and labeled. He shall also furnish the name, address, and telephone number of the nearest distributor for each piece of equipment.

E. Torsional Analysis: The CONTRACTOR shall furnish to the ENGINEER a torsional analysis of the following, which shall be submitted in accordance with Section 01 33 00 entitled "Submittals".

1. All engine drives.
2. All blowers and compressors with drives of 100 horsepower and over.
3. All other equipment where specified.

1.5 QUALITY ASSURANCE

A. Inspection, Start-up, and Field Adjustment: The CONTRACTOR shall demonstrate that all equipment meets the specified performance requirements. Upon completion of the installation of mechanical equipment controls, the CONTRACTOR shall provide the services of an experienced, competent, and authorized service representative of the manufacturer or supplies of each item of major equipment who shall visit the site of work to perform the following tasks:

1. Assist the CONTRACTOR in the installation of the equipment.
2. Inspect, check, adjust if necessary, and approve the equipment installation.
3. Startup and field-test the equipment for proper operation, efficiency, and capacity.
4. Perform necessary field adjustments during the test period until the equipment installation and operation are satisfactory to the ENGINEER.
5. Instruct the OWNER's personnel in the operation and maintenance of the equipment. Instruction shall include step-by-step troubleshooting procedures with all necessary test equipment.

B. The costs of all inspection, start-up, testing, adjustment, and instruction work performed by said factory-trained representatives shall be borne by the CONTRACTOR.

C. Public Inspection: It shall be the responsibility of the CONTRACTOR to inform the local authorities, such as building and plumbing inspectors, fire marshals, OSHA inspectors, and others, to witness all required tests for piping, plumbing, fire protection systems, pressure vessels, safety systems, etc., to obtain all required permits and certificates, and pay all fees.

PART 2 -- PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Noise Level: When in operation, no single piece of equipment shall exceed the OSHA noise level requirements for a one-hour exposure.

B. Service Factors: Service factors shall be applied in the selection or design of mechanical power transmission components. Unless otherwise specified, the following load classifications shall apply in determining service factors:

Type of Equipment	Load Classification
Blower:	
Centrifugal or vane	Uniform
Lobe	Uniform
Reciprocating Air Compressor:	
Multi-Cylinder	Moderate Shock
Single-Cylinder	Heavy Shock
Pump:	

Type of Equipment	Load Classification
Centrifugal or Rotary	Uniform
Reciprocating	Moderate Shock
Diaphragm	Moderate Shock
Mixer:	
Constant Density	Uniform
Variable Density	Moderate Shock
Crane or Hoist	Moderate Shock
Fans	Uniform

C. For service factors of electric motors, see Section 26 24 19 - Motor Control. Where load classifications are not specified, the best modern practice shall be used.

D. Welding: Unless otherwise specified or shown, all welding shall conform to the following:

1. Latest revision of ANSI/AWWA D100.
2. Latest revision of AWWA C206.
3. All composite fabricated steel assemblies to be erected or installed inside a hydraulic structure, including any fixed or movable structural components of mechanical equipment, shall have continuous seal welds to prevent the entrance of air or moisture.
4. All welding shall be by the metal-arc or gas-shielded arc method as described in the American Welding Society's "Welding Handbook" as supplemented by other pertinent standards of the AWS. Qualification of welders shall be in accordance with the AWS Standards governing the same.
5. In assembly and during welding, the component parts shall be adequately clamped, supported, and restrained to minimize distortion and control dimensions. Weld reinforcement shall be as specified by the AWS code. Upon completion of welding, all weld splatter, flux, slag, and burrs left by attachments shall be removed. Welds shall be repaired to produce a workmanlike appearance with uniform weld contours and dimensions. All sharp corners of material to be painted or coated shall be ground to a minimum of 1/32-inch on the flat.

E. Protective Coatings: All equipment shall be painted or coated in accordance with Section 09 91 00 entitled "Painting" unless otherwise approved by the ENGINEER. Non-ferrous metal and corrosion-resisting steel surfaces shall be coated with grease or lubricating oil. Coated surfaces shall be protected from abrasion or other damage during handling, testing, storing, assembly, and shipping.

F. Protection of Equipment: All equipment shall be boxed, crated, or otherwise protected from damage and moisture during shipment, handling, and storage. All equipment shall be protected from exposure to corrosive fumes and shall be kept thoroughly dry at all times. Pumps, motors, drives, electrical equipment, and other equipment having anti-friction or sleeve bearings shall be stored in weathertight storage facilities prior to installation. For extended storage periods, plastic equipment wrappers should be avoided to prevent the accumulation of condensate in gears and bearings.

G. Identification of Equipment Items: Each item of equipment shipped shall have a legible identifying mark corresponding to the equipment number shown or specified for the particular item.

H. Vibration Level: All equipment subject to vibration shall be provided with restrained spring-type vibration isolators or pads per the manufacturer's written recommendations.

I. Shop Fabrication: Shop fabrication shall be performed in accordance with the Contract Documents and the approved shop drawings.

2.2 ANCHORING OF MECHANICAL EQUIPMENT

A. Equipment that does not vibrate during normal operation shall be rigidly attached to the foundation or other adequate support to prevent lateral and vertical displacement. Equipment that vibrates during normal operation shall be provided with isolators with mechanical stops securely anchored to the foundation or other adequate support.

B. Jacking screws shall be provided in the equipment bases and bedplates to aid in leveling prior to grouting.

C. Equipment suppliers shall furnish anchor bolts, nuts, washers, and sleeves of adequate design as required for the proper anchorage of the bases and bedplates to the concrete bases. Sleeves shall be a minimum of 1-1/2 times the diameter of the anchor bolts. Unless otherwise shown or specified, anchor bolts for items of equipment mounted on baseplates shall be long enough to permit 1-1/2 inches of grout beneath the baseplate and to provide adequate anchorage into structural concrete.

D. Anchor bolts, together with templates or setting drawings, shall be delivered sufficiently early to permit setting the anchor bolts when the structural concrete is placed.

E. All bolts and anchor bolts, buried, submerged, or below the top of the wall of any hydraulic structure shall be of Type 18-8 stainless steel.

F. The Contractor shall submit, along with the mechanical equipment shop drawings, complete details showing the method of anchoring equipment and/or mechanical stops in full compliance with these requirements. All engineering required to comply with these provisions shall be the Contractor's responsibility. Submittals shall state the weight of the equipment, materials of the anchor system, and show all information in sufficient detail to permit an evaluation of its structural adequacy. Submittals not meeting these requirements in full will be returned, not approved, with deficiencies noted. The Contractor shall be required to correct all deficiencies and resubmit the proposed system of anchorage for approval.

2.3 EQUIPMENT INSTALLATION

A. The Contractor shall obtain installation instruction booklets or other recommendations from the equipment manufacturers as to procedures for, sequence of, and tolerances allowed in equipment installation. In particular, the manufacturer's recommendations as to grout spaces required, the type of grout to be used, and tolerances for level and alignment, both vertical and horizontal, shall be obtained and followed. Whenever applicable, the Contractor shall obtain the service of a manufacturer's representative specifically trained in the erection of his equipment to supervise the installation.

B. Skilled craftsmen experienced in the installation of the equipment or similar equipment shall be used. Applicable specialized tools and equipment, such as precision machinist levels, dial indicators, and gauges, shall be utilized as required in the installations. The work shall be accomplished in a workmanlike manner to produce satisfactory equipment installation free of vibration or other defects.

C. All equipment shall be installed on a 3-inch high concrete housekeeping pad unless noted otherwise. After assembly and installation on the concrete base, each unit shall be leveled and aligned in place but not grouted until after the initial fitting and alignment of connecting piping. Each unit shall then be grouted to the concrete base. Each base and bedplate shall be completely filled with grout. The grout shall extend to the edge of each base or bedplate and shall be beveled at 45 degrees all around the unit. Grout that is exposed at horizontal surfaces shall be rounded to provide drainage to appropriate points. After the grout has set, jacking screws shall be removed, and nuts on anchor bolts shall be tightened, followed by an overall check on leveling and alignment. Should the equipment not

meet tolerances of level and alignment, as recommended by the manufacturer, corrective measures shall be taken to obtain the tolerances required.

D. Non-shrink grout used in setting machinery and anchor bolts shall be made with a hydraulic-type cement which, when mixed with water according to the manufacturer's instructions, will harden rapidly to produce a permanent high-strength material. Non-shrink grout shall be POR-ROK, as manufactured by the Hallemite Manufacturing Company of Cleveland, Ohio; Burke-Stone manufactured by Burke Concrete Accessories, Inc., Oakland, California; or equal.

2.4 PROTECTION OF EQUIPMENT

A. All equipment shall be boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment shall be protected from exposure to the elements and kept thoroughly dry at all times. Pumps, motors, drives, electrical equipment, and other equipment having anti-friction or sleeve bearings shall be stored in weather-tight storage facilities such as warehouses.

B. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage. All painted surfaces damaged prior to acceptance of equipment shall be repainted.

C. Electrical equipment, controls, and insulation shall be protected against moisture or water damage. All space heaters provided in the equipment shall be connected and operating at all times from the time of delivery until the equipment is placed in operation.

2.5 COUPLINGS

A. Flexible couplings shall be provided between the driver and the driven equipment to accommodate angular misalignment, parallel misalignment, end float, and cushion shock loads. Where required for vertical shafts, 3-piece spacer coupling shall be installed.

B. The CONTRACTOR shall have the equipment manufacturer select or recommend the size and type of coupling required to suit each specific application.

C. Taperlock bushings may be used to provide for easy installation and removal on shafts of various diameters.

D. Where universal type couplings are shown, they shall be of the needle bearing type construction, equipped with commercial type grease fittings.

2.6 SHAFTING

A. General: All shafting shall be continuous between bearings and sized to transmit the power required. Keyways shall be accurately cut in line. Shafting shall not be turned down at the ends to accommodate bearings or sprockets whose bore is less than the diameter of the shaft. All shafts shall rotate in the end bearings and be turned and polished, straight, and true.

B. Materials: Shafting materials shall be appropriate for the type of service and torque transmitted. Environmental elements such as corrosive gases, moisture, and fluids shall be taken into consideration. Materials shall be as shown or specified unless furnished as part of an equipment assembly.

1. Low-carbon cold-rolled steel shafting shall conform to ASTM A 108, Grade 1018.

2. Medium carbon cold-rolled shafting shall conform to ASTM A 108, Grade 1045.

3. Corrosion-resistant shafting shall be stainless steel or Monel, whichever is most suitable for the intended service.

C. Differential Settlement: Where differential settlement between the driver and the driven equipment may be expected, a shaft of sufficient length with 2 sets of universal-type couplings shall be provided.

2.7 BEARINGS

A. General: Bearings shall conform to the standards of the Anti-Friction Bearings Manufacturing Association (AFBMA).

B. To ensure satisfactory bearing application, fitting practice, mounting, lubrication, sealing, static rating, housing strength, and other important factors shall be considered in bearing selection.

C. All re-lubricative type bearings shall be equipped with a hydraulic grease fitting in an accessible location and have sufficient grease capacity in the bearing chamber.

D. All lubricated-for-life bearings shall be factory-lubricated with the manufacturer's recommended grease to ensure maximum bearing life and best performance.

E. Bearing Life: Except where otherwise specified or shown, all bearings shall have a minimum B-10 life expectancy of 5 years or 20,000 hours, whichever occurs first. Where so specified, bearings shall have a minimum rated B-10 life expectancy corresponding to the type of service, as follows:

Type of Service	Design Life (Years)	B-10 Design Life (Hours)
	(whichever comes first)	
8-hour shift	10	20,000
16-hour shift	10	40,000
Continuous	10	60,000

F. Bearing housings shall be cast iron or steel, and bearing mounting arrangement shall be as specified or shown or as recommended in the published standards of the manufacturer. Split-type housings may be used to facilitate installation, inspection, and disassembly.

G. Sleeve-type bearings shall have a Babbitt or bronze liner unless otherwise shown.

2.8 GEARS AND GEAR DRIVES

A. Unless otherwise specified, gears shall be of the helical or spiral-bevel type, designed and manufactured in accordance with AGMA Standards, with a minimum service factor of 1.7, a minimum B-10 bearing life of 60,000 hours, and a minimum efficiency of 94 percent. Worm gears shall not be used.

B. All gear speed reducers or increasers shall be of the enclosed type, oil or grease-lubricated, and fully sealed, with a breather to allow air to escape but keep dust and dirt out. The casing shall be cast iron with lifting lugs and an inspection cover for each gear train. An oil level sight glass and an oil flow indicator shall be provided.

C. Gears and gear drives as part of an equipment assembly shall be shipped fully assembled for field installation.

D. Material selections shall be left to the discretion of the manufacturer, provided the above AGMA values are met. Input and output shafts shall be adequately designed for the service and load requirements. Gears shall be computer-matched for minimum tolerance variation. The output shaft shall have 2 positive seals to prevent oil leakage.

E. Oil level and drain location relative to the mounting arrangement shall be considered in the selection of gear drives. Oil drains shall be provided with adequate clearance to allow for a container of

sufficient size to be placed to collect the full amount of oil to be drained. Oil coolers or heat exchangers with all required appurtenances shall be furnished when necessary.

F. Where gear drive input or output shafts have to connect to couplings or sprockets supplied by others, the CONTRACTOR shall have the gear drive manufacturer supply a matching key taped to the shaft for shipment.

2.9 DRIVE CHAINS

A. Power drive chains shall be commercial-type roller chains and meet ANSI Standards.

B. A chain take-up or tightener shall be provided in every chain drive arrangement to provide easy adjustment.

C. A minimum of one connecting or coupler link shall be provided with each length of the roller chain.

D. Chain and attachments shall be the manufacturer's best standard material suitable for the process fluid.

2.10 SPROCKETS

A. General: Sprockets shall be used in conjunction with all chain drives and chain-type material handling equipment.

B. Materials: Unless otherwise specified, materials shall be as follows:

1. Sprockets with 25 teeth or less, normally used as a driver, shall be made of medium carbon steel in the 0.40 to 0.45 percent carbon range.

2. Type A and B sprockets with 26 teeth or more, normally used as driven sprockets, shall be made of a minimum of 0.20 percent carbon steel.

3. Large diameter sprockets with Type C hub shall be made of cast iron conforming to ASTM A 48, Class 30.

C. All sprockets shall be accurately machined to ANSI Standards. Sprockets shall have deep hardness penetration in tooth sections.

D. Finish bored sprockets shall be furnished, complete with keyseat and set screws.

E. To facilitate installation and disassembly, sprockets shall be of the split type or shall be furnished with taper-lock bushings as required.

F. Idler sprockets shall be furnished with brass or Babbitt bushings, complete with an oil hole and axial or circumferential grooving. Steel collars with set screws may be provided on both sides of the hub.

2.11 V-BELT DRIVES

A. V-belts and sheaves shall be of the best commercial grade and conform to ANSI, MPTA, and RMA standards.

B. Unless otherwise specified, sheaves shall be machined from the finest quality gray cast iron.

C. All sheaves shall be statically balanced. In some applications where vibration is a problem, sheaves shall be dynamically balanced. Sheaves operating at belt speeds exceeding 6,500 fpm may be required to be of special materials and construction.

D. To facilitate installation and disassembly, sheaves shall be furnished, complete with taper-lock or QD bushings as required.

E. Finish bored sheaves shall be furnished, complete with keyseat and set screws.

F. Sliding motor bases shall be provided to adjust the tension of V-belts.

2.12 DRIVE GUARDS

A. All power transmission, prime movers, machines, and moving machine parts shall be guarded to conform with the OSHA Safety and Health Standards (29CFR1910).

2.13 FLEXIBLE CONNECTORS

A. General: Flexible connectors shall be installed in all piping connections to engines, blowers, compressors, and other vibrating equipment and in piping systems in accordance with the requirements of Section 40 23 00 entitled “Process Piping and Fittings”. Flexible connectors shall isolate vibrations and compensate for pipe misalignment, movement, and offsets.

2.14 THREADED INSULATING CONNECTIONS

A. General: Threaded insulating bushings, unions, or couplings, as appropriate, shall be used for joining threaded pipes of dissimilar metals and for piping systems where corrosion control and cathodic protection are involved.

B. Materials: Threaded insulating connections shall be of nylon, Teflon, polycarbonate, polyethylene, or other non-conductive materials and shall have ratings and properties to suit the service and loading conditions.

2.15 GASKETS AND PACKINGS

A. Gaskets shall be full-faced, 1/16-inch thick compressed sheets of aramid fiber base with nitrile binder and non-stick coatings, suitable for temperatures to 700 degrees F, a pH of 1 to 11, and pressures to 1000 psig as manufactured by Garlock Style 3000 or 3400, John Crane Style 2160, or equal. Where blind flanges are shown, the gaskets shall cover the entire inside surface of the blind flanges and shall be cemented to the blind flanges. Ring gaskets shall not be permitted.

B. Packing around valve stems and reciprocating shafts shall be of compressible material, compatible with the fluid being used. Chevron-type “V” packing shall be Garlock No. 432, John Crane “Everseal”, or equal.

C. Packing around rotating shafts (other than valve stems) shall be “O”-rings or similar seals or mechanical seals, as recommended by the manufacturer and approved by the ENGINEER.

2.16 NAMEPLATES

A. Equipment nameplates of stainless steel shall be engraved or stamped and fastened to the equipment in an accessible location with No. 4 or larger oval head stainless steel screws or drive pins. Nameplates shall contain the manufacturer’s name, model, serial number, size, characteristics, and appropriate data describing the machine performance ratings.

2.17 SAFETY REQUIREMENTS

A. Where work areas are located within a flammable or toxic gas environment, suitable gas detection, ventilating, and oxygen deficiency equipment shall be provided. Workers shall be equipped with approved breathing apparatus.

PART 3 -- EXECUTION

3.1 COUPLINGS

A. The CONTRACTOR shall have the equipment manufacturer select or recommend the size and type of coupling required to suit each specific application; installation shall be per equipment manufacturer's printed recommendations.

3.2 INSULATING CONNECTIONS

A. All insulating connections shall be installed in accordance with manufacturer's printed instructions.

**** END OF SECTION ****

SECTION 43 25 00 - SUBMERSIBLE CENTRIFUGAL PUMPS

PART 1 -- GENERAL

1.1 SUMMARY

A. The Contractor shall furnish and install two submersible centrifugal pumps with enclosed electric motors, and all appurtenant work, complete and operable, in accordance with the requirements of the Contract Documents.

B. Pump manufacturers shall provide one (1) day of service by a qualified service engineer to inspect the completed installation for lubrication, alignment, full operations, etc. The service engineer shall also instruct the appropriate personnel in the proper operation and maintenance of the equipment.

C. All manufactured materials hereinafter specified, shown in the drawings, and/or approved through the shop drawing review process shall be installed or applied in accordance with the directions of the manufacturer unless specifically designated otherwise in the specifications or in the drawings.

D. The pump supplier shall be responsible for furnishing the control panel specified elsewhere.

1.2 MEASUREMENT AND PAYMENT

A. The furnishing, testing, and installation of all items and/or the performance of all work included in this section shall not be individually paid. The costs shall be included in the unit price bid for a complete lift station.

1.3 RELATED WORK SPECIFIED ELSEWHERE

A. Section 26 90 01 - Measuring and Control Instruments

B. Section 33 05 60 - Lift Station Structure

1.4 SUBMITTALS

A. **Shop drawings:** Shop drawings shall be submitted electronically as described in Section 01 33 00 for review by the Engineer. Shop drawings shall contain the following information:

1. Pump name, identification number, and specification number.

2. Performance curve and pump data. Pumps exceeding the specified horsepower at any point on the performance curve will not be acceptable.

3. The manufacturer shall indicate points on the H/Q curves, and the limits recommended for stable operation between which the pumps may be operated without surge, cavitation, and vibration. The stable operating range shall be as wide as possible based on actual hydraulic and mechanical tests.

4. Pump detailed description and specification.

5. Electrical data, including control and wiring diagrams.

6. Assembly and installation drawings, including shaft size, coupling, anchor bolt plan, part nomenclature, material list, outline dimensions, and shipping weights.

7. Where pumps are installed in precast manholes, the pump supplier shall submit lift station layout drawings showing the spacing of the pumps relative to the centerline of the manhole structure and the location of the access hatch on the top slab.

B. **Test Data:** Shall be electronically submitted in PDF format to the Engineer for approval prior to shipment. Prototype model tests will not be acceptable.

C. **Field Procedures:** Instructions for field procedures for installation, adjustments, inspection, and testing shall be provided prior to installation of the pumps.

1.5 SHOP DRAWINGS

A. The term “shop drawing” as used herein shall be understood to include detailed design calculations, fabrication and installation drawings, erection drawings, lists, graphs, operating instructions, catalog sheets, data sheets, and similar items. Unless otherwise required, said drawings shall be submitted at a time sufficiently early to allow review of same by the ENGINEER, and to accommodate the rate of construction progress required under the contract. The ENGINEER shall return prints of each shop drawing with his comments within 30 calendar days after receipt of shop drawings from the CONTRACTOR.

B. The CONTRACTOR shall review all the submittals before forwarding them to the ENGINEER for review. The submittals shall be in conformance with the CONTRACT DOCUMENTS and any minor variations shall be noted in the transmittal form. It is considered reasonable that the CONTRACTOR shall make a complete and acceptable submittal by the second submission of drawings. The OWNER reserves the right to withhold money due to the CONTRACTOR to cover additional costs of the ENGINEER's review beyond the second submission. Shop drawings shall be submitted electronically as described in Section 01 33 00.

C. All shop drawings shall be submitted through the GENERAL CONTRACTOR and be accompanied by the ENGINEER's standard shop drawing transmittal form. All resubmittals shall include one copy of the previously rejected submittal.

D. Revisions indicated on shop drawings shall be considered as changes necessary to meet the requirements of the Contract Drawings and Specifications, and shall not be taken as the basis of claims for extra work. The CONTRACTOR shall have no claim for damages or extension of time due to any delay resulting from the CONTRACTOR's having to make the required revisions to shop drawings. If the review by the ENGINEER is delayed beyond thirty (30) days, then the CONTRACTOR shall notify the ENGINEER in writing that unless the said shop drawing is returned to the contractor within three (3) business days or there may be a delay CONTRACTOR's construction schedule.

E. The review of said drawings by the ENGINEER will be limited to checking for general agreement with the specifications and drawings, and shall in no way relieve the CONTRACTOR of responsibility for errors or omissions contained therein, nor shall such review operate to waive or modify any provision contained in the Specifications or Contract Drawings. Fabricating dimensions, quantities of material, applicable code requirements, and other contract requirements shall be the CONTRACTOR's responsibility.

1.6 QUALITY ASSURANCE

A. Equipment - All pumps shall be factory tested in accordance with the Test Code for Centrifugal Pumps of the Standards of the Hydraulic Institute, Inc. Tests shall be performed on the actual assembled unit from shut-off head condition to 25 percent above the required design capacity.

B. All pumps shall be field-tested after installation to demonstrate satisfactory operation without causing excessive noise, cavitation, vibration, and overheating of the bearings.

C. In the event of failure of any pump to meet any of the above requirements or efficiencies, the Contractor shall make all necessary modifications, repairs, or replacements to conform with these specifications.

D. The services of a factory representative to check the pump during and after installation shall be furnished by the Contractor.

E. In no case shall the required horsepower at any point on the performance curve exceed the rated horsepower of the motor.

1.7 WARRANTY

A. The pump manufacturer shall warrant the pump being supplied to the Owner against defects in workmanship and materials for a period of five (5) years under normal use, operation, and service. The warranty shall be in published form and shall apply to all similar units. A copy of the warranty shall be placed on file with the Owner and Engineer prior to the installation of this equipment. The warranty shall be the manufacturer's standard.

PART 2 -- PRODUCTS

2.1 MANUFACTURER/MODEL

A. KSB

2.2 PUMP OPERATION AND PERFORMANCE REQUIREMENTS

Description	Specification
Pump Tag	P-1, P-2
Rated Pump Speed (rpm)	1,780
Capacity at Rated Speed	305 gpm at 96 ft. TDH
Minimum Passing Sphere Diameter (Inches)	3
Minimum Acceptable Efficiency at Design Point (%)	65
Discharge Outlet Diameter (Inches)	4
Motor H.P. and FLA Rating	20
Explosion Proof Motor (Yes/No)	Yes
Variable Frequency Drive (Yes/No)	No
Liquid Pumped	Wastewater
Max. Solids Conc.	0.5%
Type of Impeller	Non-Clog
Motor Voltage	230

2.3 PUMP CONSTRUCTION

A. Pumping units shall be of the centrifugal, non-clog submersible type. The design shall be such that pumping units will be automatically connected to the discharge piping when lowered into place on the discharge connection. The pumps shall be easily removable for inspection or service, requiring no bolts, nuts, or other fastenings to be removed for this purpose, and no need for personnel to enter the wet well. Each pump shall be fitted with a stainless-steel chain of adequate strength and length to permit raising the pump for inspection and removal.

B. Pump casting, pump discharge elbow, and impeller shall be Class 30 or 40B cast iron. The pump volute shall be a non-concentric design. All exposed nuts and bolts shall be of stainless steel 304. All mating surfaces where watertight sealing is required shall be machined and fitted with nitrile rubber O-rings. No secondary sealing compounds, rectangular gaskets, elliptical O-rings, grease, or other devices shall be used.

C. All surfaces coming into contact with sewage, other than stainless steel, shall be protected by an approved sewage-resistant coating.

D. The pump shaft shall be ASTM A276, Type 420 stainless steel, or ASTM A576, Grade 1045 carbon steel. The carbon steel pump shaft shall not be exposed to the pumped liquid and shall be protected and completely isolated by an ASTM A276, Type 420 stainless steel.

E. Each pump shall be provided with a tandem mechanical rotating shaft seal system. Seals shall run in an oil reservoir. The lower seal unit, between the pump and oil chamber, shall contain one stationary and one positively driven rotation tungsten carbon and ceramic. The upper seal unit, between the oil sump and motor housing, shall contain one positively driven rotating carbon ring. Each interface shall be held in contact by its own spring system.

F. The seals shall not require maintenance or adjustment but shall be easily inspected or replaceable. No seal damage shall result from operating the pumping unit out of its liquid environment.

G. The pump shall be equipped with a seal leak detection probe and warning system designed to alert maintenance personnel of lower seal failure.

H. There shall be an electric probe installed in the seal chamber between the two tandem seals. The probe shall be designed to sense contaminants within the seal chamber and send a signal to operate a warning device.

I. The following seal types shall not be considered acceptable or equal to the dual independent seal specified:

   1. Rotating shaft seals that are not clipped or set screwed to the shaft.

   2. Conventional double mechanical seals containing either a common single or double spring acting between the upper and lower units.

   3. Seals that require a pressure differential to offset external pressure to affect the sealing.

J. Each pump shall be provided with an oil chamber for the shaft sealing system. The drain and inspection plug, with a positive anti-leak seal, shall be easily accessible from the outside.

K. The pump shaft shall rotate on two (2) permanently greased lubricated bearings.

L. The impeller shall be of gray cast iron, Class 30 or class 40B, double shrouded clog-inhibiting type characterized by a constant area throughlet. The impellers must be hydraulically and dynamically balanced to run “vibration-free” both in air and water. The impeller design shall be as indicated in the pump schedule above. The fit between the impeller to the shaft shall be made by a locking assembly which is perfectly sealed from the liquid by a protective rubber cap, and a bolt threaded to the shaft terminal.

M. A rotating wear ring system shall be installed to provide sealing between the volute and impeller. The stationary volute and rotating impeller wear ring shall be stainless steel.

N. The pump discharge size shall be such that the exit velocity shall not exceed 12 ft./sec. at the rated pump capacity. The use of increasing elbow to reduce the velocity will not be acceptable. Pumps

manufactured unable to meet the maximum velocity specified shall use a lower RPM pump to meet the maximum velocity criterion. **Using hardened elbows will not be acceptable.**

2.4 PUMP MOTOR

A. Equipment requiring electric motors shall be equipped with motors conforming to the following unless specifically noted otherwise.

1. The motor furnished shall have its design voltage inscribed on the nameplate.

2. All motors less than 30 HP shall be designed, constructed, and tested in accordance with NEMA Standards MG1-1972 and MG2-1973.

B. The pump motor cable shall be S.P.C. suitable for submersible pump applications. The power cable shall be sized according to NEC and ICDA standards and have P-MSHA approval. The pump cable end will be sealed with a protective covering prior to electrical installation. The cable shall be continuous from the motor to the control panel. No splicing will be permitted.

C. Design cable entry with a machined precision fit. It shall preclude specific torque requirements to ensure a watertight and submersible seal. Do not use epoxies, silicones, or other secondary sealing systems.

D. The junction chamber containing the terminal board shall be sealed from the motor by an O-ring seal. The connection between the cable conductors and stator leads shall be made with a threaded compressed type binding post permanently affixed to a terminal board and thus perfectly leakproof.

1. The pump motor shall be squirrel-cage, induction, shell-type design, air-cooled, NEMA Design B. Motor shall be explosion-proof, suitable for use in Class 1, Division 1, Group C& D hazardous locations. The stator winding and stator leads shall be insulated with moisture-resistant Class F insulation, which will resist a temperature of 311°F. The motor shall be designed for continuous operation in a totally, partially, or non-submerged condition. The pump shall be capable of sustaining a minimum of ten (10) starts per hour. All three-phase motors shall be dual voltage. Thermal sensors shall be used to monitor stator temperatures. The stator shall be equipped with three (3) thermal switches embedded in the end coils of the stator windings (one switch in each stator phase). These shall be used in conjunction with a supplement to the external motor over protection and wired to the control panel. If separate leakage sensors are provided, contractors shall be responsible for wiring those sensors.

2. Pump Protection Features: Thermal overload in each pump that will de-energize the pump starter and allows for automatic restart when the condition clears. The control panel shall contain relays for monitoring pump seal failure conditions. Coordinate equipment and circuitry requirements with the pump supplier. Input alarms to the pump controller. Seal failure alarms shall not shut down the associated pump.

2.5 ACCESSORIES

A. Pump Guide Rails and Discharge Connections

1. The Contractor shall furnish and install a complete set of guide bars designed to permit the raising and lowering of pumps. Guide bars shall be Schedule 40, 304 stainless steel pipes. Each pump shall ride on two guide bars. Pumps with only one guide bar will not be accepted. The guide bars shall be of adequate length to extend from the lower guide holders on the pump discharge connections to the upper holders. Intermediate stainless-steel supports shall be installed at intervals not to exceed ten (10) feet. Pumps with guide cables will not be acceptable.

2. The Contractor shall furnish and install the required discharge connections in each lift station, each consisting of a discharge elbow connected to a mounting base, which will be permanently installed in the lift station. Sealing of the pumping unit to the discharge connection elbow shall be accomplished by a simple linear downward motion of the pump unit. The entire weight of the pump unit shall be guided by no less than two guide bars and pressed tightly against the discharge connection elbow with cast-iron-to-cast-iron contact. The guide bars or cables shall not support any portion of the weight of the pump. Sealing of a discharge interface by means of a diaphragm, O-ring, or another device will not be acceptable. No portion of the pump shall bear directly on the floor of the sump. The pump, with its appurtenances, shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet.

3. The accessories shall include a stainless steel upper guide bar holder, cable rack, stainless steel hook to attach the pump lifting gear when not in use, and intermediate stainless-steel guide bar supports. Lower guide bar holders shall be integral to the discharge connection.

B. Access Hatches

1. Pump manufacturer to verify hatch size and location in top slab for clearance of pumps positioned as shown in the drawings. Minimum clearance of 3 inches is required. The pump supplier shall verify the size shown in the drawings and notify the Engineer of any changes if necessary.

2. Door leaves of minimum 1/4-inch aluminum, diamond pattern, to withstand a live load of 300 pounds per square foot.

3. Channel frame of minimum 3-inch welded aluminum with anchor flange around the perimeter. The channel frame shall be embedded in the concrete with a minimum 6-inch cover. The overall dimension of the access hatch frame shall not exceed 3 ¾ inches beyond the clear opening on all four sides. Access hatches using angle frames will not be accepted.

4. Each door leaf shall be equipped with heavy-duty recessed hinges, totally enclosed spring or torsion bar operators as necessary for easy operation, a drop handle, and an automatic hold-open arm with a release handle. Locate the hold-open arm release handle such that it can be easily operated without endangering personnel.

5. Maximum hatch opening force is not to exceed 15 pounds when applied perpendicularly to the hatch edge through any part of the hatch-operating arc.

6. Each door leaf shall be secured with a snap-lock with a removable handle and padlock hasp welded to each leaf and frame.

7. Aluminum surfaces mill finished. Apply bituminous paint to the exterior of the frame in contact with concrete.

8. Mechanical Fasteners and Hardware: Series 300 stainless steel.

9. Approved Manufacturers: Halliday, Bilco, or equal.

C. Safety Grating

1. The protective grating panel shall be 1-1/2 in. “I” bar aluminum grating with Safety Orange powder-coated finish. Grating shall be hinged and shall be supplied with a positive latch to maintain the unit in an upright position. Grating shall have a 6-in. viewing area on each lateral unhinged side for visual observation and limited maintenance. Grating support ledges on 300 lbs. psf loaded access covers only shall incorporate nut rail with a minimum of four (4) stainless steel spring nuts. A padlock hasp for an owner-supplied padlock shall be provided.

PART 3 -- EXECUTION

3.1 INSTALLATION

A. Pumping equipment, including guide rails or cables and discharge connections, shall be installed in accordance with the plans or approved procedures submitted with the shop drawings unless otherwise approved by the Engineer.

B. CONTRACTOR shall demonstrate the removal of each submersible pump in the presence of the ENGINEER to ensure proper installation of the pumps, lifting chains, guide rails/cables, electrical wiring, and hatches.

3.2 ALIGNMENT

A. Equipment shall be field-tested to verify proper alignment, operation as specified, and freedom from binding, scraping, vibration, shaft runout, or other defects. Pump drive shafts shall be measured just prior to assembly to ensure correct alignment without forcing. Equipment shall be secure in position and neat in appearance.

3.3 LUBRICANTS

A. The installation work shall include furnishing the necessary oil and grease for initial operation.

3.4 STARTUP

A. A startup report listing the voltage and the current on each motor lead, pumping rate based on the wetwell draw down rate, breaker setting, overload heater size and the rated full load current of each motor shall be submitted.

B. At startup, the Contractor shall supply clean water as required to test the pumps and other lift station equipment.

**** END OF SECTION ****

APPENDIX A – EPA REQUIRED DOCUMENTS

1. Equal Opportunity Clause (41 CFR 60-1.4) and Equal Employment Opportunity (Executive Order 11246)
2. Davis-Bacon Act (40 U.S.C. 3141-3148)
3. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)
4. Rights to Inventions Made Under Contract or Agreement (37 CFR Part 401)
5. Clean Air Act (42 U.S.C. 7401-7671q)
6. Debarment and Suspension (Executive Orders 12549 and 12689)
7. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)
8. Prohibition on Certain Telecommunications (2 CFR 200.216)
9. Procurement of Recovered Materials (2 CFR 200.323)
10. Domestic Preferences for Procurement (2 CFR 200.322)
11. Micro-Purchase Acquisition Threshold (2 CFR 200.320)
12. Federal Water Pollution Control Act (33 U.S.C. 1251-1387)
13. Resource Conservation and Recovery Act (2 CFR 200.323)
14. Build America Buy America Act (2 CFR Part 184)
15. DBE Overview and Requirements (40 CFR Part 33.202 and 33.203)
16. Federal Wage Rates

Title 41 —Public Contracts and Property Management
Subtitle B —Other Provisions Relating to Public Contracts
Chapter 60 —Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor
Part 60-1 —Obligations of Contractors and Subcontractors
Subpart A —Preliminary Matters; Equal Opportunity Clause; Compliance Reports

Authority: Sec. 201, E.O. 11246, 30 FR 12319, 3 CFR, 1964-1965 Comp., p. 339, as amended by E.O. 11375, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, E.O. 12086, 43 FR 46501, 3 CFR, 1978 Comp., p. 230, E.O. 13279, 67 FR 77141, 3 CFR, 2002 Comp., p. 258 and E.O. 13672, 79 FR 42971.

Source: 43 FR 49240, Oct. 20, 1978, unless otherwise noted.

Editorial Note: Nomenclature changes to subpart A appear at 85 FR 71570, Nov. 10, 2020.

§ 60-1.4 Equal opportunity clause.

(a) ***Government contracts.*** Except as otherwise provided, each contracting agency shall include the following equal opportunity clause contained in section 202 of the order in each of its Government contracts (and modifications thereof if not included in the original contract):

> During the performance of this contract, the contractor agrees as follows:
>
> (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
>
> (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
>
> (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: *Provided,* however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(b) ***Federally assisted construction contracts.***

(1) Except as otherwise provided, each administering agency shall require the inclusion of the following language as a condition of any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of the equal opportunity clause:

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided,* That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

(2) [Reserved]

(c) ***Subcontracts.*** Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.

(d) ***Inclusion of the equal opportunity clause by reference.*** The equal opportunity clause may be included by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Director of OFCCP may designate.

(e) ***Incorporation by operation of the order.*** By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.

(f) ***Adaptation of language.*** Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings.

[80 FR 54975, Sept. 11, 2015]

Executive Order 11246

SOURCE: The following is the text of Executive Order 11246 of September 28, 1965, as it appears at 30 FR 12319, 12935, 3 CFR, 1964-1965 Comp., p.339, unless otherwise noted.

Under and by virtue of the authority vested in me as President of the United States by the Constitution and statutes of the United States, it is ordered as follows:

Part I — Nondiscrimination in Government Employment

[Part I superseded by EO 11478 of Aug. 8, 1969, 34 FR 12985, 3 CFR, 1966-1970 Comp., p. 803]

Part II - Nondiscrimination in Employment by Government Contractors and Subcontractors

Subpart A - Duties of the Secretary of Labor

SEC. 201. The Secretary of Labor shall be responsible for the administration and enforcement of Parts II and III of this Order. The Secretary shall adopt such rules and regulations and issue such orders as are deemed necessary and appropriate to achieve the purposes of Parts II and III of this Order.

[Sec. 201 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart B - Contractors' Agreements

SEC. 202. Except in contracts exempted in accordance with Section 204 of this Order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with afl provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States." [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 203.

a. Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

b. Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.

c. Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the Secretary of Labor as part of its Compliance Report and shall set forth what efforts he has made to obtain such information.

d. The Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this Order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the order. In the event that the union, or the agency shall refuse to execute such a statement, the Compliance Report shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the Secretary of Labor may require.

[Sec. 203 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684; EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 204

a. The Secretary of Labor may, when the Secretary deems that special circumstances in the national interest so require, exempt a contracting agency from the requirement of including any or all of the provisions of Section 202 of this **Order** in any specific contract, subcontract, or purchase **order**.

b. The Secretary of Labor may, by rule or regulation, exempt certain classes of contracts, subcontracts, or purchase orders (1) whenever work is to be or has been performed outside the United States and no recruitment of workers within the limits of the United States is involved; (2) for standard commercial supplies or raw materials; (3) involving less than specified amounts of money or specified numbers of workers; or (4) to the extent that they involve

subcontracts below a specified tier.

c. Section 202 of this **Order** shall not apply to a Government contractor or subcontractor that is a religious corporation, association, educational institution, or society, with respect to the employment of individuals of a particular religion to perform work connected with the carrying on by such corporation, association, educational institution, or society of its activities. Such contractors and subcontractors are not exempted or excused from complying with the other requirements contained in this **Order**.

d. The Secretary of Labor may also provide, by rule, regulation, or order, for the exemption of facilities of a contractor that are in all respects separate and distinct from activities of the contractor related to the performance of the contract: provided, that such an exemption will not interfere with or impede the effectuation of the purposes of this **Order**: and provided further, that in the absence of such an exemption all facilities shall be covered by the provisions of this **Order**."

[Sec. 204 amended by EO 13279 of Dec. 16, 2002, 67 FR 77141, 3 CFR, 2002 Comp., p. 77141 - 77144]

Subpart C - Powers and Duties of the Secretary of Labor and the Contracting Agencies

SEC. 205. The Secretary of Labor shall be responsible for securing compliance by all Government contractors and subcontractors with this Order and any implementing rules or regulations. All contracting agencies shall comply with the terms of this Order and any implementing rules, regulations, or orders of the Secretary of Labor. Contracting agencies shall cooperate with the Secretary of Labor and shall furnish such information and assistance as the Secretary may require.

[Sec. 205 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 206.

a. The Secretary of Labor may investigate the employment practices of any Government contractor or subcontractor to determine whether or not the contractual provisions specified in Section 202 of this Order have been violated. Such investigation shall be conducted in accordance with the procedures established by the Secretary of Labor.

b. The Secretary of Labor may receive and investigate complaints by employees or prospective employees of a Government contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Section 202 of this Order.

[Sec. 206 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 207. The Secretary of Labor shall use his/her best efforts, directly and through interested Federal, State, and local agencies, contractors, and all other available instrumentalities to cause any labor union engaged in work under Government contracts or any agency referring workers or providing or supervising apprenticeship or training for or in the course of such work to cooperate in

the implementation of the purposes of this Order. The Secretary of Labor shall, in appropriate cases, notify the Equal Employment Opportunity Commission, the Department of Justice, or other appropriate Federal agencies whenever it has reason to believe that the practices of any such labor organization or agency violate Title VI or Title VII of the Civil Rights Act of 1964 or other provision of Federal law.

[Sec. 207 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 208.

a. The Secretary of Labor, or any agency, officer, or employee in the executive branch of the Government designated by rule, regulation, or order of the Secretary, may hold such hearings, public or private, as the Secretary may deem advisable for compliance, enforcement, or educational purposes.

b. The Secretary of Labor may hold, or cause to be held, hearings in accordance with Subsection of this Section prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this Order. No order for debarment of any contractor from further Government contracts under Section 209(6) shall be made without affording the contractor an opportunity for a hearing.

Subpart D - Sanctions and Penalties

SEC. 209. In accordance with such rules, regulations, or orders as the Secretary of Labor may issue or adopt, the Secretary may:

1. Publish, or cause to be published, the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this Order or of the rules, regulations, and orders of the Secretary of Labor.
2. Recommend to the Department of Justice that, in cases in which there is substantial or material violation or the threat of substantial or material violation of the contractual provisions set forth in Section 202 of this Order, appropriate proceedings be brought to enforce those provisions, including the enjoining, within the limitations of applicable law, of organizations, individuals, or groups who prevent directly or indirectly, or seek to prevent directly or indirectly, compliance with the provisions of this Order.

3. Recommend to the Equal Employment Opportunity Commission or the Department of Justice that appropriate proceedings be instituted under Title VII of the Civil Rights Act of 1964.

4. Recommend to the Department of Justice that criminal proceedings be brought for the furnishing of false information to any contracting agency or to the Secretary of Labor as the case may be.

5. After consulting with the contracting agency, direct the contracting agency to cancel, terminate, suspend, or cause to be cancelled, terminated, or suspended, any contract, or any portion or portions thereof, for failure of the contractor or subcontractor to comply with equal

employment opportunity provisions of the contract. Contracts may be cancelled, terminated, or suspended absolutely or continuance of contracts may be conditioned upon a program for future compliance approved by the Secretary of Labor.

6. Provide that any contracting agency shall refrain from entering into further contracts, or extensions or other modifications of existing contracts, with any noncomplying contractor, until such contractor has satisfied the Secretary of Labor that such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this Order.

(b) Pursuant to rules and regulations prescribed by the Secretary of Labor, the Secretary shall make reasonable efforts, within a reasonable time limitation, to secure compliance with the contract provisions of this Order by methods of conference, conciliation, mediation, and persuasion before proceedings shall be instituted under subsection (a)(2) of this Section, or before a contract shall be cancelled or terminated in whole or in part under subsection (a)(5) of this Section.

[Sec. 209 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 210. Whenever the Secretary of Labor makes a determination under Section 209, the Secretary shall promptly notify the appropriate agency. The agency shall take the action directed by the Secretary and shall report the results of the action it has taken to the Secretary of Labor within such time as the Secretary shall specify. If the contracting agency fails to take the action directed within thirty days, the Secretary may take the action directly.

[Sec. 210 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p 230]

SEC. 211. If the Secretary shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless the bidder or prospective contractor has satisfactorily complied with the provisions of this Order or submits a program for compliance acceptable to the Secretary of Labor.

[Sec. 211 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 212. When a contract has been cancelled or terminated under Section 209(a)(5) or a contractor has been debarred from further Government contracts under Section 209(a)(6) of this Order, because of noncompliance with the contract provisions specified in Section 202 of this Order, the Secretary of Labor shall promptly notify the Comptroller General of the United States.

[Sec. 212 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

Subpart E - Certificates of Merit

SEC. 213. The Secretary of Labor may provide for issuance of a United States Government Certificate of Merit to employers or labor unions, or other agencies which are or may hereafter be engaged in work under Government contracts, if the Secretary is satisfied that the personnel and employment practices of the employer, or that the personnel, training, apprenticeship, membership,

grievance and representation, upgrading, and other practices and policies of the labor union or other agency conform to the purposes and provisions of this Order.

SEC. 214. Any Certificate of Merit may at any time be suspended or revoked by the Secretary of Labor if the holder thereof, in the judgment of the Secretary, has failed to comply with the provisions of this Order.

SEC. 215. The Secretary of Labor may provide for the exemption of any employer, labor union, or other agency from any reporting requirements imposed under or pursuant to this Order if such employer, labor union, or other agency has been awarded a Certificate of Merit which has not been suspended or revoked.

Part III - Nondiscrimination Provisions in Federally Assisted Construction Contracts

SEC. 301. Each executive department and agency, which administers a program involving Federal financial assistance shall require as a condition for the approval of any grant, contract, loan, insurance, or guarantee thereunder, which may involve a construction contract, that the applicant for Federal assistance undertake and agree to incorporate, or cause to be incorporated, into all construction contracts paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to such grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the provisions prescribed for Government contracts by Section 202 of this Order or such modification thereof, preserving in substance the contractor's obligations thereunder, as may be approved by the Secretary of Labor, together with such additional provisions as the Secretary deems appropriate to establish and protect the interest of the United States in the enforcement of those obligations. Each such applicant shall also undertake and agree (1) to assist and cooperate actively with the Secretary of Labor in obtaining the compliance of contractors and subcontractors with those contract provisions and with the rules, regulations and relevant orders of the Secretary, (2) to obtain and to furnish to the Secretary of Labor such information as the Secretary may require for the supervision of such compliance, (3) to carry out sanctions and penalties for violation of such obligations imposed upon contractors and subcontractors by the Secretary of Labor pursuant to Part II, Subpart D, of this Order, and (4) to refrain from entering into any contract subject to this Order, or extension or other modification of such a contract with a contractor debarred from Government contracts under Part II, Subpart D, of this Order.

[Sec. 301 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 302.

a. "Construction contract" as used in this Order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

b. The provisions of Part II of this Order shall apply to such construction contracts, and for purposes of such application the administering department or agency shall be considered the

contracting agency referred to therein.

c. The term "applicant" as used in this Order means an applicant for Federal assistance or, as determined by agency regulation, other program participant, with respect to whom an application for any grant, contract, loan, insurance, or guarantee is not finally acted upon prior to the effective date of this Part, and it includes such an applicant after he/she becomes a recipient of such Federal assistance.

SEC. 303.

a. The Secretary of Labor shall be responsible for obtaining the compliance of such applicants with their undertakings under this Order. Each administering department and agency is directed to cooperate with the Secretary of Labor and to furnish the Secretary such information and assistance as the Secretary may require in the performance of the Secretary's functions under this Order.

b. In the event an applicant fails and refuses to comply with the applicant's undertakings pursuant to this Order, the Secretary of Labor may, after consulting with the administering department or agency, take any or all of the following actions: (1) direct any administering department or agency to cancel, terminate, or suspend in whole or in part the agreement, contract or other arrangement with such applicant with respect to which the failure or refusal occurred; (2) direct any administering department or agency to refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received by the Secretary of Labor from such applicant; and (3) refer the case to the Department of Justice or the Equal Employment Opportunity Commission for appropriate law enforcement or other proceedings.

c. In no case shall action be taken with respect to an applicant pursuant to clause (1) or (2) of subsection (b) without notice and opportunity for hearing.

[Sec. 303 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 304. Any executive department or agency which imposes by rule, regulation, or order requirements of nondiscrimination in employment, other than requirements imposed pursuant to this Order, may delegate to the Secretary of Labor by agreement such responsibilities with respect to compliance standards, reports, and procedures as would tend to bring the administration of such requirements into conformity with the administration of requirements imposed under this Order: Provided, That actions to effect compliance by recipients of Federal financial assistance with requirements imposed pursuant to Title VI of the Civil Rights Act of 1964 shall be taken in conformity with the procedures and limitations prescribed in Section 602 thereof and the regulations of the administering department or agency issued thereunder.

Part IV - Miscellaneous

SEC. 401. The Secretary of Labor may delegate to any officer, agency, or employee in the Executive branch of the Government, any function or duty of the Secretary under Parts II and III of this Order.

[Sec. 401 amended by EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230]

SEC. 402. The Secretary of Labor shall provide administrative support for the execution of the program known as the "Plans for Progress."

SEC. 403.

a. Executive Orders Nos. 10590 (January 19, 1955), 10722 (August 5, 1957), 10925 (March 6, 1961), 11114 (June 22, 1963), and 11162 (July 28, 1964), are hereby superseded and the President's Committee on Equal Employment Opportunity established by Executive Order No. 10925 is hereby abolished. All records and property in the custody of the Committee shall be transferred to the Office of Personnel Management and the Secretary of Labor, as appropriate.

b. Nothing in this Order shall be deemed to relieve any person of any obligation assumed or imposed under or pursuant to any Executive Order superseded by this Order. All rules, regulations, orders, instructions, designations, and other directives issued by the President's Committee on Equal Employment Opportunity and those issued by the heads of various departments or agencies under or pursuant to any of the Executive orders superseded by this Order, shall, to the extent that they are not inconsistent with this Order, remain in full force and effect unless and until revoked or superseded by appropriate authority. References in such directives to provisions of the superseded orders shall be deemed to be references to the comparable provisions of this Order.

[Sec. 403 amended by EO 12107 of Dec. 28, 1978, 44 FR 1055, 3 CFR, 1978 Comp., p, 264]

SEC. 404. The General Services Administration shall take appropriate action to revise the standard Government contract forms to accord with the provisions of this Order and of the rules and regulations of the Secretary of Labor.

SEC. 405. This Order shall become effective thirty days after the date of this Order.

The Davis-Bacon Act, as Amended

U.S. Department of Labor
Wage and Hour Division

WH Publication 1246
(Revised April 2009)

This material will be made available to Sensory impaired individuals upon request.
Voice phone: 202-693-0675
TDD* phone: 202-523-9530

PUBLIC LAW 107–217—AUG. 21, 2002 [as amended[1]]

An Act

To revise, codify, and enact without substantive change certain general and permanent laws, related to public buildings, property, and works, as title 40, United States Code, ''Public Buildings, Property, and Works''.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. TITLE 40, UNITED STATES CODE.

Certain general and permanent laws of the United States, related to public buildings, property, and works, are revised, codified,and enacted as title 40, United States Code, ''Public Buildings, Property, and Works'', as follows:

TITLE 40—PUBLIC BUILDINGS, PROPERTY, AND WORKS

* * * *

SUBTITLE II—PUBLIC BUILDINGS AND WORKS

* * * *

PART A—GENERAL

* * * *

CHAPTER 31 – GENERAL

* * * *

SUBCHAPTER IV - WAGE RATE REQUIREMENTS

Sec. 3141. Definition

In this subchapter, the following definitions apply:

(1) Federal government.— The term "Federal Government" has the same meaning that the term "United States" had in the Act of March 3, 1931 (ch. 411, 46 Stat. 1494) (known as the Davis-Bacon Act).[2]

(2) Wages, scale of wages, wage rates, minimum wages, and prevailing wages.— The terms "wages", "scale of wages", "wage rates", "minimum wages", and "prevailing wages" include—

(A) the basic hourly rate of pay; and

---

[1] Pub. L. 109-284 Sec. 6(11), (12), and (13) made three minor technical corrections in Secs 3141(1), and 3142(d) and (e). (Sept. 27, 2006, 120 Stat.1213.)

[2] The Davis-Bacon Act, referred to in par. (1), is act of Mar. 3, 1931, ch. 411, 46 Stat. 1494, as amended, which was classified generally to sections 276a to 276a-5 of former Title 40, Public Buildings, Property, and Works, and was repealed and reenacted as sections 3141-3144, 3146, and 3147 of this title by Pub. L. 107-217, Secs. 1, 6(b), Aug. 21, 2002, 116 Stat. 1062, 1304.

(B) for medical or hospital care, pensions on retirement or death, compensation for injuries or illness resulting from occupational activity, or insurance to provide any of the forgoing, for unemployment benefits, life insurance, disability and sickness insurance, or accident insurance, for vacation and holiday pay, for defraying the costs of apprenticeship or other similar programs, or for other bona fide fringe benefits, but only where the contractor or subcontractor is not required by other federal, state, or local law to provide any of those benefits, the amount of—

(i) the rate of contribution irrevocably made by a contractor or subcontractor to a trustee or to a third person under a fund, plan, or program; and

(ii) the rate of costs to the contractor or subcontractor that may be reasonably anticipated in providing benefits to laborers and mechanics pursuant to an enforceable commitment to carry out a financially responsible plan or program which was communicated in writing to the laborers and mechanics affected.

Sec. 3142. Rate of wages for laborers and mechanics

(a) Application.— The advertised specifications for every contract in excess of $2,000, to which the Federal Government or the District of Columbia is a party, for construction, alteration, or repair, including painting and decorating, of public buildings and public works of the Government or the District of Columbia that are located in a State or the District of Columbia and which requires or involves the employment of mechanics or laborers shall contain a provision stating the minimum wages to be paid various classes of laborers and mechanics.

(b) Based on Prevailing Wage.— The minimum wages shall be based on the wages the Secretary of Labor determines to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State in which the work is to be performed, or in the District of Columbia if the work is to be performed there.

(c) Stipulations Required in Contract.— Every contract based upon the specifications referred to in subsection (a) must contain stipulations that—

(1) the contractor or subcontractor shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and the laborers and mechanics;

(2) the contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work; and

(3) there may be withheld from the contractor so much of accrued payments as the contracting officer considers necessary to pay to laborers and mechanics employed by the contractor or any subcontractor on the work the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and the rates of wages received by the laborers and mechanics and not refunded to the contractor or subcontractors or their agents.

(d) Discharge of Obligation.— The obligation of a contractor or subcontractor to make payment in accordance with the prevailing wage determinations of the Secretary of Labor, under this subchapter and other laws incorporating this subchapter by reference, may be discharged by making payments in cash, by making contributions described in section 3141(2)(B)(i) of this title, by assuming an enforceable commitment to bear the costs of a plan or program referred to in section 3141(2)(B)(ii) of this title, or by any combination of payment, contribution, and assumption, where the aggregate of the payments, contributions, and costs is not less than the basic hourly rate of pay plus the amount referred to in section 3141(2)(B) of this title.

(e) Overtime Pay.— In determining the overtime pay to which a laborer or mechanic is entitled under any federal law, the regular or basic hourly rate of pay (or other alternative rate on which premium rate of overtime compensation is computed) of the laborer or mechanic is deemed to be the rate computed under section 3141(2)(A) of this title, except that where the amount of payments, contributions, or costs incurred with respect to the laborer or mechanic exceeds the applicable prevailing wage, the regular or basic hourly rate of pay (or other alternative rate) is the amount of payments, contributions, or costs actually incurred with respect to the laborer or mechanic minus the greater of the amount of contributions or costs of the types described in section 3141(2)(B) of this title actually incurred with respect to the laborer or mechanic or the amount determined under section 3141(2)(B) of this title but not actually paid.

3141(2)(B) of this title but not actually paid. Sec.3143.

Every contract within the scope of this subchapter shall contain a provision that if the contracting officer finds that any laborer or mechanic employed by the contractor or any subcontractor directly on the site of the work covered by the contract has been or is being paid a rate of wages less than the rate of wages required by the contract to be paid, the Federal Government by written notice to the contractor may terminate the contractor's right to proceed with the work or the part of the work as to which there has been a failure to pay the required wages. The Government may have the work completed, by contract or otherwise, and the contractor and the contractor's sureties shall be liable to the Government for any excess costs the Government incurs.

Sec. 3144. Authority of Comptroller General to pay wages and list contractors violating contracts

(a) Payment of Wages.—

(1) In general.— The Comptroller General shall pay directly to laborers and mechanics from any accrued payments withheld under the terms of a contract any wages found to be due laborers and mechanics under this subchapter.

(2) Right of action.— If the accrued payments withheld under the terms of the contract are insufficient to reimburse all the laborers and mechanics who have not been paid the wages required under this subchapter, the laborers and mechanics have the same right to bring a civil action and intervene against the contractor and the contractor's sureties as is conferred by law on persons furnishing labor or materials. In those proceedings it is not a

defense that the laborers and mechanics accepted or agreed to accept less than the required rate of wages or voluntarily made refunds.

(b) List of Contractors Violating Contracts.—

(1) In general.— The Comptroller General shall distribute to all departments of the Federal Government a list of the names of persons whom the Comptroller General has found to have disregarded their obligations to employees and subcontractors.

(2) Restriction on awarding contracts.— No contract shall be awarded to persons appearing on the list or to any firm, corporation, partnership, or association in which the persons have an interest until three years have elapsed from the date of publication of the list.

* * * *

Sec. 3146. Effect on other federal laws

This subchapter does not supersede or impair any authority otherwise granted by federal law to provide for the establishment of specific wage rates.

Sec. 3147. Suspension of this subchapter during a national emergency

The President may suspend the provisions of this subchapter during a national emergency.

Sec. 3148. Application of this subchapter to certain contracts

This subchapter applies to a contract authorized by law that is made without regard to section 3709 of the Revised Statutes (41 U.S.C. 5), or on a cost-plus-a-fixed-fee basis or otherwise without advertising for proposals, if this subchapter otherwise would apply to the contract.

Contract Work Hours and, Safety Standards Act, as Amended

U.S. Department of Labor
Wage and Hour Division

WH1432
(Revised April 2009)

An Act

To revise, codify, and enact without substantive change certain general and permanent laws, related to public buildings, property, and works, as title 40, United States Code, ''Public Buildings, Property, and Works''.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. TITLE 40, UNITED STATES CODE.

Certain general and permanent laws of the United States, related to public buildings, property, and works, are revised, codified, and enacted as title 40, United States Code, ''Public Buildings, Property, and Works'', as follows:

TITLE 40—PUBLIC BUILDINGS, PROPERTY, AND WORKS

* * * *

SUBTITLE II—PUBLIC BUILDINGS AND WORKS

PART A—GENERAL

* * * *

CHAPTER 37 – CONTRACT WORK HOURS AND SAFETY STANDARDS

* * * *

Sec. 3141. Definitions

(a) Definition.— In this chapter, the term ''Federal Government'' has the same meaning that the term ''United States'' had in the Contract Work Hours and Safety Standards Act (Public Law 87–581, 76 Stat. 357).

(b) Application.—

(1) Contracts.— This chapter applies to—

---

[1]Pub. L. 109-284 Sec. 6(14), (15), (16), and (17) made minor technical corrections in Secs 3701, 3702, and 3704 (Sept. 27, 2006,.120 Stat.1213.)

[2]The Contract Work Hours and Safety Standards Act, referred to in subsec. (a), is title I of Pub. L. 87–581, Aug. 13, 1962, 76 Stat. 357, as amended, which was classified generally to subchapter II (Sec. 327 et seq.) of chapter 5 of former Title 40, Public Buildings, Property, and Works, prior to repeal and reenactment as this chapter by Pub. L. 107–217, Secs. 1, 6 (b), Aug. 21, 2002, 116 Stat. 1062, 1304. Section 101 of title I of Pub. L. 87–581 was classified to section 327 of former Title 40 and was repealed and not reenacted by Pub. L. 107–217.

(A) any contract that may require or involve the employment of laborers or mechanics on a public work of the Federal Government, a territory of the United States,
or the District of Columbia; and

(B) any other contract that may require or involve the employment of laborers or mechanics if the contract is one—

(i) to which the Government, an agency or instrumentality of the Government, a territory, or the District of Columbia is a party;

(ii) which is made for or on behalf of the Government, an agency or instrumentality, a territory, or the District of Columbia; or

(iii) which is a contract for work financed at least in part by loans or grants from, or loans insured or guaranteed by, the Government or an agency or instrumentality under any federal law providing wage standards for the work.

(2) Laborers and mechanics.— This chapter applies to all laborers and mechanics employed by a contractor or subcontractor in the performance of any part of the work under the contract—

(A) including watchmen, guards, and workers performing services in connection with dredging or rock excavation in any river or harbor of the United States, a territory,
or the District of Columbia; but

(B) not including an employee employed as a seaman.

(3) Exceptions.—

(A) This chapter.— This chapter does not apply to—

(i) a contract for—

(I) transportation by land, air, or water;

(II) the transmission of intelligence; or

(III) the purchase of supplies or materials or articles ordinarily available in the open market;

(ii) any work required to be done in accordance with the provisions of the Walsh-Healey Act (41 U.S.C. 35 et seq.); and

(iii) a contract in an amount that is not greater than $100,000.

(B) Section 3702.— Section 3702 of this title does not apply to work where the assistance described in paragraph (1)(B)(iii) from the Government or an agency or instrumentality is only a loan guarantee or insurance.

3702. Work hours.

(a) Standard Workweek.— The wages of every laborer and mechanic employed by any contractor or subcontractor in the performance of work on a contract described in section 3701 of this title shall be computed on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permitted subject to this section. For each workweek in which the laborer or mechanic is so employed, wages include compensation, at a rate not less than one and one-half times the basic rate of pay, for all hours worked in excess of 40 hours in the workweek.

(b) Contract Requirements.— A contract described in section 3701 of this title, and any obligation of the Federal Government, a territory of the United States, or the District of Columbia in connection with that contract, must provide that—

(1) a contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall not require or permit any laborer or mechanic, in any workweek in which the laborer or mechanic is employed on that work, to work more than 40 hours in that workweek, except as provided in this chapter; and

(2) when a violation of clause (1) occurs, the contractor and any subcontractor responsible for the violation are liable—

(A) to the affected employee for the employee's unpaid wages; and

(B) to the Government, the District of Columbia, or a territory for liquidated damages as provided in the contract.

(c) Liquidated Damages.— Liquidated damages under subsection (b)(2)(B) shall be computed for each individual employed as a laborer or mechanic in violation of this chapter and shall be equal to $10 for each calendar day on which the individual was required or permitted to work in excess of the standard workweek without payment of the overtime wages required by this chapter.

(d) Amounts Withheld to Satisfy Liabilities.— Subject to section 3703 of this title, the governmental agency for which the contract work is done or which is providing financial assistance for the work may withhold, or have withheld, from money payable because of work performed by a contractor or subcontractor, amounts administratively determined to be necessary to satisfy the liabilities of the contractor or subcontractor for unpaid wages and liquidated damages as provided in this section.

3703. Report of violations and withholding of amounts for unpaid wages and liquidated damages.

(a) Reports of Inspectors.— An officer or individual designated as an inspector of the work to be performed under a contract described in section 3701 of this title, or to aid in the enforcement or fulfillment of the contract, on observation or after investigation immediately shall report to the proper officer of the Federal Government, a territory of the United States, or the District of Columbia all violations of this chapter occurring in the performance of the work, together with the name of each laborer or mechanic who was required or permitted to work in violation of this chapter and the day the violation occurred.

(b) Withholding Amounts.—

(1) Determining amount.— The amount of unpaid wages and liquidated damages owing under this chapter shall be determined administratively.

(2) Amount directed to be withheld.— The officer or individual whose duty it is to approve the payment of money by the Government, territory, or District of Columbia in connection with the performance of the contract work shall direct the amount of—

(A) liquidated damages to be withheld for the use and benefit of the Government, territory, or District; and

(B) unpaid wages to be withheld for the use and benefit of the laborers and mechanics who were not compensated as required under this chapter.

(3) Payment.— The Comptroller General shall pay the amount administratively determined to be due directly to the laborers and mechanics from amounts withheld on account of underpayments of wages if the amount withheld is adequate. If the amount withheld is not adequate, the Comptroller General shall pay an equitable proportion of the amount due.

(c) Right of Action and Intervention Against Contractors and Sureties.— If the accrued payments withheld under the terms of the contract are insufficient to reimburse all the laborers and mechanics who have not been paid the wages required under this chapter, the laborers and mechanics, in the case of a department or agency of the Government, have the same right of action and intervention against the contractor and the contractor's sureties as is conferred by law on persons furnishing labor or materials. In those proceedings it is not a defense that the laborers and mechanics accepted or agreed to accept less than the required rate of wages or voluntarily made refunds.

(d) Review Process.—

(1) Time limit for appeal.— Within 60 days after an amount is withheld as liquidated damages, any contractor or subcontractor aggrieved by the withholding may appeal to the head of the agency of the Government or territory for which the contract work is done or which is providing financial assistance for the work, or to the Mayor of the District of Columbia in the case of liquidated damages withheld for the use and benefit of the District.

(2) Review by agency head or mayor.— The agency head or Mayor may review the administrative determination of liquidated damages. The agency head or Mayor may issue a final order affirming the determination or may recommend to the Secretary of Labor that an appropriate adjustment in liquidated damages be made, or that the contractor or subcontractor be relieved of liability for the liquidated damages, if it is found that the amount is incorrect or that the contractor or subcontractor violated this chapter inadvertently, notwithstanding the exercise of due care by the contractor or subcontractor and the agents of the contractor or subcontractor.

(3) Review by secretary.— The Secretary shall review all pertinent facts in the matter and may conduct any investigation the Secretary considers necessary in order to affirm or reject the recommendation. The decision of the Secretary is final.

(4) Judicial action.— A contractor or subcontractor aggrieved by a final order for the withholding of liquidated damages may file a claim in the United States Court of Federal Claims within 60 days after the final order. A final order of the agency head, Mayor, or Secretary is conclusive with respect to findings of fact if supported by substantial evidence.

(e) Applicability of Other Laws.—

(1) Reorganization plan.— Reorganization Plan Numbered 14 of 1950 (eff. May 24, 1950, 64 Stat. 1267) applies to this chapter.

(2) Section 3145.— Section 3145 of this title applies to contractors and subcontractors referred to in section 3145 who are engaged in the performance of contracts subject to this chapter.

3704. Health and safety standards in building trades and construction industry.

(a) Condition of Contracts.—

(1) In general.— Each contract in an amount greater than $100,000 that is entered into under legislation subject to Reorganization Plan Numbered 14 of 1950 (eff. May 24, 1950, 64 Stat. 1267) and is for construction, alteration, and repair, including painting and decorating, must provide that no contractor or subcontractor contracting for any part of the contract work shall require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to health or safety, as established under construction safety and health standards the Secretary of Labor prescribes by regulation based on proceedings pursuant to section 553 of title 5, provided that the proceedings include a hearing similar in nature to that authorized by section 553 of title 5.

(2) Consultation.— In formulating standards under this section, the Secretary shall consult with the Advisory Committee created by subsection (d).

(b) Compliance.—

(1) Actions to gain compliance.— The Secretary may make inspections, hold hearings, issue orders, and make decisions based on findings of fact as the Secretary considers necessary to gain compliance with this section and any health and safety standard the Secretary prescribes under subsection (a). For those purposes the Secretary and the United States district courts have the authority and jurisdiction provided by sections 4 and 5 of the Walsh-Healey Act (41 U.S.C. 38, 39).

(2) Remedy when noncompliance found.— When the Secretary, after an opportunity for an adjudicatory hearing by the Secretary, establishes noncompliance under this section of any condition of a contract described in—

(A) section 3701 (b)(1)(B)(i) or (ii) of this title, the governmental agency for which the contract work is done may cancel the contract and make other contracts for the completion of the contract work, charging any additional cost to the original contractor; or

(B) section 3701 (b)(1)(B)(iii) of this title, the governmental agency which is providing the financial guarantee, assistance, or insurance for the contract work may withhold the guarantee, assistance, or insurance attributable to the performance of the contract.

(3) Nonapplicability.— Section 3703 of this title does not apply to the enforcement of this section.

(c) Repeated Violations.—

(1) Transmittal of names of repeat violators to comptroller general.— When the Secretary, after an opportunity for an agency hearing, decides on the record that, by repeated willful or grossly negligent violations of this chapter, a contractor or subcontractor has demonstrated that subsection (b) is not effective to protect the safety and health of the employees of the contractor or subcontractor, the Secretary shall make a finding to that effect and, not sooner than 30 days after giving notice of the finding to all interested persons, shall transmit the name of the contractor or subcontractor to the Comptroller General.

(2) Ban on awarding contracts.— The Comptroller General shall distribute each name transmitted under paragraph (1) to all agencies of the Federal Government. Unless the Secretary otherwise recommends, the contractor, subcontractor, or any person in which the contractor or subcontractor has a substantial interest may not be awarded a contract subject to this section until three years have elapsed from the date the name is transmitted to the Comptroller General. The Secretary shall terminate the ban if, before the end of the three-year period, the Secretary, after affording interested persons due notice and an opportunity for a hearing, is satisfied that a contractor or subcontractor whose name was transmitted to the Comptroller General will comply responsibly with the requirements of this section. The Comptroller General shall inform all Government agencies after being informed of the Secretary's action.

(3) Judicial review.— A person aggrieved by the Secretary's action under this subsection or subsection (b) may file with the appropriate United States court of appeals a petition for review of the Secretary's action within 60 days after receiving notice of the Secretary's action. The clerk of the court immediately shall send a copy of the petition to the Secretary. The Secretary then shall file with the court the record on which the action is based. The findings of fact by the Secretary, if supported by substantial evidence, are final. The court may enter a decree enforcing, modifying, modifying and enforcing, or setting aside any part of, the order of the Secretary or the appropriate Government agency. The judgment of the court may be reviewed by the Supreme Court as provided in section 1254 of title 28.

(d) Advisory Committee on Construction Safety and Health.—

(1) Establishment.— There is an Advisory Committee on Construction Safety and Health in the Department of Labor.

(2) Composition.— The Committee is composed of nine members appointed by the Secretary, without regard to chapter 33 of title 5, as follows:

(A) Three members shall be individuals representative of contractors to whom this section applies.

(B) Three members shall be individuals representative of employees primarily in the building trades and construction industry engaged in carrying out contracts to which this section applies.

(C) Three members shall be public representatives who shall be selected on the basis of their professional and technical competence and experience in the construction health and safety field.

(3) Chairman.— The Secretary shall appoint one member as Chairman.

(4) Duties.— The Committee shall advise the Secretary—

(A) in formulating construction safety and health standards and other regulations; and

(B) on policy matters arising in carrying out this section.

(5) Experts and Consultants.— The Secretary may appoint special advisory and technical experts or consultants as may be necessary to carry out the functions of the Committee.

(6) Compensation and expenses.— Committee members are entitled to receive compensation at rates the Secretary fixes, but not more than $100 a day, including traveltime, when performing Committee business, and expenses under section 5703 of title 5.

3705. Safety programs.

The Secretary of Labor shall—

(1) provide for the establishment and supervision of programs for the education and training of employers and employees in the recognition, avoidance, and prevention of unsafe working conditions in employment covered by this chapter; and

(2) collect reports and data and consult with and advise employers as to the best means of preventing injuries.

3706. Limitations, variations, tolerances, and exemptions.

The Secretary of Labor may provide reasonable limitations to, and may prescribe regulations allowing reasonable variations to, tolerances from, and exemptions from, this chapter that the Secretary may find necessary and proper in the public interest to prevent injustice or undue hardship or to avoid serious impairment of the conduct of Federal Government business.

3707. Contractor certification or contract clause in acquisition of commercial items not required.

In a contract to acquire a commercial item (as defined in section 4 of the Office of Federal Procurement Policy Act (41 U.S.C. 403)), a certification by a contractor or a contract clause may not be required to implement a prohibition or requirement in this chapter.

3708. Criminal penalties.

A contractor or subcontractor having a duty to employ, direct, or control a laborer or mechanic employed in the performance of work contemplated by a contract to which this chapter applies that intentionally violates this chapter shall be fined under title 18, imprisoned for not more than six months, or both.

PART 401—RIGHTS TO INVENTIONS MADE BY NONPROFIT ORGANIZATIONS AND SMALL BUSINESS FIRMS UNDER GOVERNMENT GRANTS, CONTRACTS, AND COOPERATIVE AGREEMENTS

Sec.

AUTHORITY: 35 U.S.C. 206 and the delegation of authority by the Secretary of Commerce to the Assistant Secretary of Commerce for Technology Policy at sec. 3(g) of DOO 10–18.

SOURCE: 52 FR 8554, Mar. 18, 1987, unless otherwise noted.

§401.1 Scope.

(a) Traditionally there have been no conditions imposed by the government on research performers while using private facilities which would preclude them from accepting research funding from other sources to expand, to aid in completing or to conduct separate investigations closely related to research activities sponsored by the government. Notwithstanding the right of research organizations to accept supplemental funding from other sources for the purpose of expediting or more comprehensively accomplishing the research objectives of the government sponsored project, it is clear that the ownership provisions of these regulations would remain applicable in any invention ''conceived or first actually reduced to practice in performance'' of the project. Separate accounting for the two funds used to support the project in this case is not a determining factor.

(1) To the extent that a non-government sponsor established a project which, although closely related, falls outside the planned and committed activities of a government-funded project and does not diminish or distract from the performance of such activities, inventions made in performance of the non-government sponsored project would not be subject to the conditions of these regulations. An example of such related but separate projects would be a government sponsored project having research objectives to expand scientific understanding in a field and a closely related industry sponsored project having as its objectives the application of such new knowledge to develop usable new technology. The time relationship in conducting the two projects and the use of new fundamental knowledge from one in the performance of the other are not important determinants since most inventions rest on a knowledge base built up by numerous independent research efforts extending over many years. Should such an invention be claimed by the performing organization to be the product of non-government sponsored research and be challenged by the sponsoring agency as being reportable to the government as a ''subject invention'', the challenge is appealable as described in §401.11(d).

(2) An invention which is made outside of the research activities of a government-funded project is not viewed as a ''subject invention'' since it cannot be shown to have been ''conceived or first actually reduced to practice'' in performance of the project. An obvious example of this is a situation where an instrument purchased with government funds is later used, without interference with or cost to the government-funded project, in making an invention all expenses of which involve only non-government funds.

(b) This part inplements 35 U.S.C. 202 through 204 and is applicable to all Federal agencies. It applies to all funding agreements with small business firms and nonprofit organizations executed after the effective date of this part, except for a funding agreement

made primarily for educational purposes. Certain sections also provide guidance for the administration of funding agreements which predate the effective date of this part. In accordance with 35 U.S.C. 212, no scholarship, fellowship, training grant, or other funding agreement made by a Federal agency primarily to an awardee for educational purposes will contain any provision giving the Federal agency any rights to inventions made by the awardee.

(c) The *march-in* and appeals procedures in §§ 401.6 and 401.11 shall apply to any march-in or appeal proceeding under a funding agreement subject to Chapter 18 of Title 35, U.S.C., initiated after the effective date of this part even if the funding agreement was executed prior to that date.

(d) At the request of the contractor, a funding agreement for the operation of a government-owned facility which is in effect on the effective date of this part shall be promptly amended to include the provisions required by §§ 401.3(a) unless the agency determines that one of the exceptions at 35 U.S.C. 202(a)(i) through (iv) § 401.3(a)(8) through (iv) of this part) is applicable and will be applied. If the exception at § 401.3(a)(iv) is determined to be applicable, the funding agreement will be promptly amended to include the provisions required by § 401.3(c).

(e) This regulation supersedes OMB Circular A–124 and shall take precedence over any regulations dealing with ownership of inventions made by small businesses and nonprofit organizations which are inconsistent with it. This regulation will be followed by all agencies pending amendment of agency regulations to conform to this part and amended Chapter 18 of Title 35. Only deviations requested by a contractor and not inconsistent with Chapter 18 of Title 35, United States Code, may be made without approval of the Secretary. Modifications or tailoring of clauses as authorized by §§ 401.5 or 401.3, when alternative provisions are used under § 401.3(a)(1) through (4), are not considered deviations requiring the Secretary's approval. Three copies of proposed and final agency regulations supplementing this part shall be submitted to the Secretary at the office set out in § 401.16 for approval for consistency with this part before they are submitted to the Office of Management and Budget (OMB) for review under Executive Order 12291 or, if no submission is required to be made to OMB, before their submission to the FEDERAL REGISTER for publication.

(f) In the event an agency has outstanding prime funding agreements that do not contain patent flow-down provisions consistent with this part or earlier Office of Federal Procurement Policy regulations (OMB Circular A–124 or OMB Bulletin 81–22), the agency shall take appropriate action to ensure that small business firms or nonprofit organizations that are subcontractors under any such agreements and that received their subcontracts after July 1, 1981, receive rights in their subject inventions that are consistent with Chapter 18 and this part.

(g) This part is not intended to apply to arrangements under which nonprofit organizations, small business firms, or others are allowed to use government-owned research facilities and normal technical assistance provided to users of those facilities, whether on a reimbursable or nonreimbursable basis. This part is also not intended to apply to arrangements under which sponsors reimburse the government or facility contractor for the contractor employee's time in performing work for the sponsor. Such arrangements are not considered ''funding agreements'' as defined at 35 U.S.C. 201(b) and § 401.2(a) of this part.

§ 401.2 Definitions.

As used in this part—

(a) The term *funding agreement* means any contract, grant, or cooperative agreement entered into between any Federal agency, other than the Tennessee Valley Authority, and any contractor for the performance of experimental, developmental, or research work funded in whole or in part by the Federal government. This term also includes any assignment, substitution of parties, or subcontract of any type entered into for the performance of experimental, developmental, or research work under a funding agreement as defined in the first sentence of this paragraph.

(b) The term *contractor* means any person, small business firm or nonprofit organization which is a party to a funding agreement.

(c) The term *invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).

(d) The term *subject invention* means any invention of a contractor conceived or first actually reduced to practice in the performance of work under a funding agreement; provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of contract performance.

(e) The term *practical application* means to manufacture in the case of a composition of product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(f) The term *made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(g) The term *small business firm* means a small business concern as defined at section 2 of Pub. L. 85–536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this part, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.5 will be used.

(h) The term *nonprofit organization* means universities and other institutions of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(i) The term *Chapter 18* means Chapter 18 of Title 35 of the United States Code.

(j) The term *Secretary* means the Assistant Secretary of Commerce for Technology Policy.

(k) The term *electronically filed* means any submission of information transmitted by an electronic or optical-electronic system.

(l) The term *electronic or optical-electronic system* means a software-based system approved by the agency for the transmission of information.

(m) The term *patent application* or ''application for patent'' includes a provisional or nonprovisional U.S. national application for patent as defined in 37 CFR 1.9 (a)(2) and (a)(3), respectively, or an application for patent in a foreign country or in an international patent office.

(n) The term *initial patent application* means a nonprovisional U.S. national application for patent as defined in 37 CFR 1.9(a)(3).

[52 FR 8554, Mar. 18, 1987, as amended at 60 FR 41812, Aug. 14, 1995]

§ 401.3 Use of the standard clauses at § 401.14.

(a) Each funding agreement awarded to a small business firm or nonprofit organization (except those subject to 35 U.S.C. 212) shall contain the clause found in § 401.14(a) with such modifications and tailoring as authorized or required elsewhere in this part. However, a funding agreement may contain alternative provisions—

(1) When the contractor is not located in the United States or does not have a place of business located in the United States or is subject to the control of a foreign government; or

(2) In exceptional circumstances when it is determined by the agency that restriction or elimination of the right to retain title to any subject invention will better promote the policy and objectives of Chapter 18 of Title 35 of the United States Code; or

(3) When it is determined by a government authority which is authorized

by statute or executive order to conduct foreign intelligence or counterintelligence activities that the restriction or elimination of the right to retain title to any subject invention is necessary to protect the security to such activities; or

(4) When the funding agreement includes the operation of the government-owned, contractor-operated facility of the Department of Energy primarily dedicated to that Department's naval nuclear propulsion or weapons related programs and all funding agreement limitations under this subparagraph on the contractor's right to elect title to a subject invention are limited to inventions occurring under the above two programs.

(5) If any part of the contract may require the contractor to perform work on behalf of the Government at a Government laboratory under a Cooperative Research and Development Agreement (CRADA) pursuant to the statutory authority of 15 U.S.C. 3710a, the contracting officer may include alternate paragraph (b) in the basic patent rights clause in §401.14. Because the use of the alternate is based on a determination of exceptional circumstances under §401.3(a)(2), the contracting officer shall ensure that the appeal procedures of §401.4 are satisfied whenever the alternate is used.

(b) When an agency exercises the exceptions at §401.3(a)(2) or (3), it shall use the standard clause at §401.14(a) with only such modifications as are necessary to address the exceptional circumstances or concerns which led to the use of the exception. For example, if the justification relates to a particular field of use or market, the clause might be modified along lines similar to those described in §401.14(b). In any event, the clause should provide the contractor with an opportunity to receive greater rights in accordance with the procedures at §401.15. When an agency justifies and exercises the exception at §401.3(a)(2) and uses an alternative provision in the funding agreement on the basis of national security, the provision shall provide the contractor with the right to elect ownership to any invention made under such funding agreement as provided by the Standard Patent Rights Clause found at §401.14(a) if the invention is not classified by the agency within six months of the date it is reported to the agency, or within the same time period the Department of Energy does not, as authorized by regulation, law or Executive order or implementing regulations thereto, prohibit unauthorized dissemination of the invention. Contracts in support of DOE's naval nuclear propulsion program are exempted from this paragraph.

(c) When the Department of Energy exercises the exception at §401.3(a)(4), it shall use the clause prescribed at §401.14(b) or substitute thereto with such modification and tailoring as authorized or required elsewhere in this part.

(d) When a funding agreement involves a series of separate task orders, an agency may apply the exceptions at §401.3(a)(2) or (3) to individual task orders, and it may structure the contract so that modified patent rights provisions will apply to the task order even though the clauses at either §401.14(a) or (b) are applicable to the remainder of the work. Agencies are authorized to negotiate such modified provisions with respect to task orders added to a funding agreement after its initial award.

(e) Before utilizing any of the exceptions in §401.3(a) of this section, the agency shall prepare a written determination, including a statement of facts supporting the determination, that the conditions identified in the exception exist. A separate statement of facts shall be prepared for each exceptional circumstances determination, except that in appropriate cases a single determination may apply to both a funding agreement and any subcontracts issued under it or to any funding agreement to which such an exception is applicable. In cases when §401.3(a)(2) is used, the determination shall also include an analysis justifying the determination. This analysis should address with specificity how the alternate provisions will better achieve the objectives set forth in 35 U.S.C. 200. A copy of each determination, statement of facts, and, if applicable, analysis shall be promptly provided to the contractor or prospective contractor

along with a notification to the contractor or prospective contractor of its rights to appeal the determination of the exception under 35 U.S.C. 202(b)(4) and § 401.4 of this part.

(f) Except for determinations under § 401.3(a)(3), the agency shall also provide copies of each determination, statement of fact, and analysis to the Secretary. These shall be sent within 30 days after the award of the funding agreement to which they pertain. Copies shall also be sent to the Chief Counsel for Advocacy of the Small Business Administration if the funding agreement is with a small business firm. If the Secretary of Commerce believes that any individual determination or pattern of determinations is contrary to the policies and objectives of this chapter or otherwise not in conformance with this chapter, the Secretary shall so advise the head of the agency concerned and the Administrator of the Office of Federal Procurement Policy and recommend corrective actions.

(g) To assist the Comptroller General of the United States to accomplish his or her responsibilities under 35 U.S.C. 202, each Federal agency that enters into any funding agreements with nonprofit organizations or small business firms shall accumulate and, at the request of the Comptroller General, provide the Comptroller General or his or her duly authorized representative the total number of prime agreements entered into with small business firms or nonprofit organizations that contain the patent rights clause in this part or under OMB Circular A–124 for each fiscal year beginning with October 1, 1982.

(h) To qualify for the standard clause, a prospective contractor may be required by an agency to certify that it is either a small business firm or a nonprofit organization. If the agency has reason to question the status of the prospective contractor as a small business firm, it may file a protest in accordance with 13 CFR 121.9. If it questions nonprofit status, it may require the prospective contractor to furnish evidence to establish its status as a nonprofit organization.

[52 FR 8554, Mar. 18, 1987, as amended at 69 FR 17301, Apr. 2, 2004]

§ 401.4 Contractor appeals of exceptions.

(a) In accordance with 35 U.S.C. 202(b)(4) a contractor has the right to an administrative review of a determination to use one of the exceptions at § 401.3(a) (1) through (4) if the contractor believes that a determination is either contrary to the policies and objectives of this chapter or constitutes an abuse of discretion by the agency. Paragraph (b) of this section specifies the procedures to be followed by contractors and agencies in such cases. The assertion of such a claim by the contractor shall not be used as a basis for withholding or delaying the award of a funding agreement or for suspending performance under an award. Pending final resolution of the claim the contract may be issued with the patent rights provision proposed by the agency; however, should the final decision be in favor of the contractor, the funding agreement will be amended accordingly and the amendment made retroactive to the effective date of the funding agreement.

(b)(1) A contractor may appeal a determination by providing written notice to the agency within 30 working days from the time it receives a copy of the agency's determination, or within such longer time as an agency may specify in its regulations. The contractor's notice should specifically identify the basis for the appeal.

(2) The appeal shall be decided by the head of the agency or by his/her designee who is at a level above the person who made the determination. If the notice raises a genuine dispute over the material facts, the head of the agency or the designee shall undertake, or refer the matter for, fact-finding.

(3) Fact-finding shall be conducted in accordance with procedures established by the agency. Such procedures shall be as informal as practicable and be consistent with principles of fundamental fairness. The procedures should afford the contractor the opportunity to appear with counsel, submit documentary evidence, present witnesses and confront such persons as the agency may rely upon. A transcribed record shall be made and shall be available at cost to the contractor upon request. The requirement for a transcribed

record may be waived by mutual agreement of the contractor and the agency.

(4) The official conducting the fact-finding shall prepare or adopt written findings of fact and transmit them to the head of the agency or designee promptly after the conclusion of the fact-finding proceeding along with a recommended decision. A copy of the findings of fact and recommended decision shall be sent to the contractor by registered or certified mail.

(5) Fact-finding should be completed within 45 working days from the date the agency receives the contractor's written notice.

(6) When fact-finding has been conducted, the head of the agency or designee shall base his or her decision on the facts found, together with any argument submitted by the contractor, agency officials or any other information in the administrative record. In cases referred for fact-finding, the agency head or the designee may reject only those facts that have been found to be clearly erroneous, but must explicitly state the rejection and indicate the basis for the contrary finding. The agency head or the designee may hear oral arguments after fact-finding provided that the contractor or contractor's attorney or representative is present and given an opportunity to make arguments and rebuttal. The decision of the agency head or the designee shall be in writing and, if it is unfavorable to the contractor shall include an explanation of the basis of the decision. The decision of the agency or designee shall be made within 30 working days after fact-finding or, if there was no fact-finding, within 45 working days from the date the agency received the contractor's written notice. A contractor adversely affected by a determination under this section may, at any time within sixty days after the determination is issued, file a petition in the United States Claims Court, which shall have jurisdiction to determine the appeal on the record and to affirm, reverse, remand, or modify as appropriate, the determination of the Federal agency.

§ 401.5 Modification and tailoring of clauses.

(a) Agencies should complete the blank in paragraph (g)(2) of the clauses at § 401.14 in accordance with their own or applicable government-wide regulations such as the Federal Acquisition Regulation. In grants and cooperative agreements (and in contracts, if not inconsistent with the Federal Acquisition Regulation) agencies wishing to apply the same clause to all subcontractors as is applied to the contractor may delete paragraph (g)(2) of the clause and delete the words ''to be performed by a small business firm or domestic nonprofit organization'' from paragraph (g)(1). Also, if the funding agreement is a grant or cooperative agreement, paragraph (g)(3) may be deleted. When either paragraph (g)(2) or paragraphs (g) (2) and (3) are deleted, the remaining paragraph or paragraphs should be renumbered appropriately.

(b) Agencies should complete paragraph (l), ''Communications'', at the end of the clauses at § 401.14 by designating a central point of contact for communications on matters relating to the clause. Additional instructions on communications may also be included in paragraph (l).

(c) Agencies may replace the italicized words and phrases in the clauses at § 401.14 with those appropriate to the particular funding agreement. For example, ''contracts'' could be replaced by ''grant,'' ''contractor'' by ''grantee,'' and ''contracting officer'' by ''grants officer.'' Depending on its use, ''Federal agency'' can be replaced either by the identification of the agency or by the specification of the particular office or official within the agency.

(d) When the agency head or duly authorized designee determines at the time of contracting with a small business firm or nonprofit organization that it would be in the national interest to acquire the right to sublicense foreign governments or international organizations pursuant to any existing treaty or international agreement, a sentence may be added at the end of paragraph (b) of the clause at § 401.14 as follows:

This license will include the right of the government to sublicense foreign governments, their nationals, and international organizations, pursuant to the following treaties or international agreements:

_____.

The blank above should be completed with the names of applicable existing treaties or international agreements, agreements of cooperation, memoranda of understanding, or similar arrangements, including military agreements relating to weapons development and production. The above language is not intended to apply to treaties or other agreements that are in effect on the date of the award but which are not listed. Alternatively, agencies may use substantially similar language relating the government's rights to specific treaties or other agreements identified elsewhere in the funding agreement. The language may also be modified to make clear that the rights granted to the foreign government, and its nationals or an international organization may be for additional rights beyond a license or sublicense if so required by the applicable treaty or international agreement. For example, in some exclusive licenses or even the assignment of title in the foreign country involved might be required. Agencies may also modify the language above to provide for the direct licensing by the contractor of the foreign government or international organization.

(e) If the funding agreement involves performance over an extended period of time, such as the typical funding agreement for the operation of a government-owned facility, the following language may also be added:

The *agency* reserves the right to unilaterally amend this *funding agreement* to identify specific treaties or international agreements entered into or to be entered into by the government after the effective date of this *funding agreement* and effectuate those license or other rights which are necessary for the government to meet its obligations to foreign governments, their nationals and international organizations under such treaties or international agreements with respect to subject inventions made after the date of the amendment.

(f) Agencies may add additional subparagraphs to paragraph (f) of the clauses at § 401.14 to require the contractor to do one or more of the following:

(1) Provide a report prior to the close-out of a funding agreement listing all subject inventions or stating that there were none.

(2) Provide, upon request, the filing date, patent application number and title; a copy of the patent application; and patent number and issue date for any subject invention in any country in which the contractor has applied for a patent.

(3) Provide periodic (but no more frequently than annual) listings of all subject inventions which were disclosed to the agency during the period covered by the report.

(g) If the contract is with a nonprofit organization and is for the operation of a government-owned, contractor-operated facility, the following will be substituted for paragraph (k)(3) of the clause at § 401.14(a):

(3) After payment of patenting costs, licensing costs, payments to inventors, and other expenses incidental to the administration of subject inventions, the balance of any royalties or income earned and retained by the *contractor* during any fiscal year on subject inventions under this or any successor *contract* containing the same requirement, up to any amount equal to five percent of the budget of the facility for that fiscal year, shall be used by the contractor for scientific research, development, and education consistent with the research and development mission and objectives of the facility, including activities that increase the licensing potential of other inventions of the facility. If the balance exceeds five percent, 75 percent of the excess above five percent shall be paid by the contractor to the Treasury of the United States and the remaining 25 percent shall be used by the *contractor* only for the same purposes as described above. To the extent it provides the most effective technology transfer, the licensing of subject inventions shall be administered by *contractor* employees on location at the facility.

(h) If the contract is for the operation of a government-owned facility, agencies may add the following at the end of paragraph (f) of the clause at § 401.14(a):

(5) The contractor shall establish and maintain active and effective procedures to ensure that subject inventions are promptly identified and timely disclosed and shall submit a description of the procedures to the

contracting officer so that the *contracting officer* may evaluate and determine their effectiveness.

[52 FR 8554, Mar. 18, 1987, as amended at 60 FR 41812, Aug. 14, 1995]

§ 401.6 Exercise of march-in rights.

(a) The following procedures shall govern the exercise of the march-in rights of the agencies set forth in 35 U.S.C. 203 and paragraph (j) of the clause at § 401.14.

(b) Whenever an agency receives information that it believes might warrant the exercise of march-in rights, before initiating any march-in proceeding, it shall notify the contractor in writing of the information and request informal written or oral comments from the contractor as well as information relevant to the matter. In the absence of any comments from the contractor within 30 days, the agency may, at its discretion, proceed with the procedures below. If a comment is received within 30 days, or later if the agency has not initiated the procedures below, then the agency shall, within 60 days after it receives the comment, either initiate the procedures below or notify the contractor, in writing, that it will not pursue march-in rights on the basis of the available information.

(c) A march-in proceeding shall be initiated by the issuance of a written notice by the agency to the contractor and its assignee or exclusive licensee, as applicable and if known to the agency, stating that the agency is considering the exercise of march-in rights. The notice shall state the reasons for the proposed march-in in terms sufficient to put the contractor on notice of the facts upon which the action would be based and shall specify the field or fields of use in which the agency is considering requiring licensing. The notice shall advise the contractor (assignee or exclusive licensee) of its rights, as set forth in this section and in any supplemental agency regulations. The determination to exercise march-in rights shall be made by the head of the agency or his or her designee.

(d) Within 30 days after the receipt of the written notice of march-in, the contractor (assignee or exclusive licensee) may submit in person, in writing, or through a representative, information or argument in opposition to the proposed march-in, including any additional specific information which raises a genuine dispute over the material facts upon which the march-in is based. If the information presented raises a genuine dispute over the material facts, the head of the agency or designee shall undertake or refer the matter to another official for fact-finding.

(e) Fact-finding shall be conducted in accordance with the procedures established by the agency. Such procedures shall be as informal as practicable and be consistent with principles of fundamental fairness. The procedures should afford the contractor the opportunity to appear with counsel, submit documentary evidence, present witnesses and confront such persons as the agency may present. A transcribed record shall be made and shall be available at cost to the contractor upon request. The requirement for a transcribed record may be waived by mutual agreement of the contractor and the agency. Any portion of the march-in proceeding, including a fact-finding hearing that involves testimony or evidence relating to the utilization or efforts at obtaining utilization that are being made by the contractor, its assignee, or licensees shall be closed to the public, including potential licensees. In accordance with 35 U.S.C. 202(c)(5), agencies shall not disclose any such information obtained during a march-in proceeding to persons outside the government except when such release is authorized by the contractor (assignee or licensee).

(f) The official conducting the fact-finding shall prepare or adopt written findings of fact and transmit them to the head of the agency or designee promptly after the conclusion of the fact-finding proceeding along with a recommended determination. A copy of the findings of fact shall be sent to the contractor (assignee or exclusive licensee) by registered or certified mail. The contractor (assignee or exclusive licensee) and agency representatives will be given 30 days to submit written arguments to the head of the agency or

designee; and, upon request by the contractor oral arguments will be held before the agency head or designee that will make the final determination.

(g) In cases in which fact-finding has been conducted, the head of the agency or designee shall base his or her determination on the facts found, together with any other information and written or oral arguments submitted by the contractor (assignee or exclusive licensee) and agency representatives, and any other information in the administrative record. The consistency of the exercise of march-in rights with the policy and objectives of 35 U.S.C. 200 shall also be considered. In cases referred for fact-finding, the head of the agency or designee may reject only those facts that have been found to be clearly erroneous, but must explicitly state the rejection and indicate the basis for the contrary finding. Written notice of the determination whether march-in rights will be exercised shall be made by the head of the agency or designee and sent to the contractor (assignee of exclusive licensee) by certified or registered mail within 90 days after the completion of fact-finding or 90 days after oral arguments, whichever is later, or the proceedings will be deemed to have been terminated and thereafter no march-in based on the facts and reasons upon which the proceeding was initiated may be exercised.

(h) An agency may, at any time, terminate a march-in proceeding if it is satisfied that it does not wish to exercise march-in rights.

(i) The procedures of this part shall also apply to the exercise of march-in rights against inventors receiving title to subject inventions under 35 U.S.C. 202(d) and, for that purpose, the term ''contractor'' as used in this section shall be deemed to include the inventor.

(j) An agency determination unfavorable to the contractor (assignee or exclusive licensee) shall be held in abeyance pending the exhaustion of appeals or petitions filed under 35 U.S.C. 203(2).

(k) For purposes of this section the term *exclusive licensee* includes a partially exclusive licensee.

(l) Agencies are authorized to issue supplemental procedures not inconsistent with this part for the conduct of march-in proceedings.

§ 401.7 Small business preference.

(a) Paragraph (k)(4) of the clauses at § 401.14 Implements the small business preference requirement of 35 U.S.C. 202(c)(7)(D). Contractors are expected to use efforts that are reasonable under the circumstances to attract small business licensees. They are also expected to give small business firms that meet the standard outlined in the clause a preference over other applicants for licenses. What constitutes reasonable efforts to attract small business licensees will vary with the circumstances and the nature, duration, and expense of efforts needed to bring the invention to the market. Paragraph (k)(4) is not intended, for example, to prevent nonprofit organizations from providing larger firms with a right of first refusal or other options in inventions that relate to research being supported under long-term or other arrangements with larger companies. Under such circumstances it would not be resonable to seek and to give a preference to small business licensees.

(b) Small business firms that believe a nonprofit organization is not meeting its obligations under the clause may report their concerns to the Secretary. To the extent deemed appropriate, the Secretary will undertake informal investigation of the concern, and, if appropriate, enter into discussions or negotiations with the nonprofit organization to the end of improving its efforts in meeting its obligations under the clause. However, in no event will the Secretary intervene in ongoing negotiations or contractor decisions concerning the licensing of a specific subject invention. All the above investigations, discussions, and negotiations of the Secretary will be in coordination with other interested agencies, including the Small Business Administration; and in the case of a contract for the operation of a government-owned, contractor operated research or production facility, the Secretary will coordinate with the agency responsible for the facility prior to any discussions or negotiations with the contractor.

§ 401.8 Reporting on utilization of subject inventions.

(a) Paragraph (h) of the clauses at § 401.14 and its counterpart in the clause at Attachment A to OMB Circular A–124 provides that agencies have the right to receive periodic reports from the contractor on utilization of inventions. Agencies exercising this right should accept such information, to the extent feasible, in the format that the contractor normally prepares it for its own internal purposes. The prescription of forms should be avoided. However, any forms or standard questionnaires that are adopted by an agency for this purpose must comply with the requirements of the Paperwork Reduction Act. Copies shall be sent to the Secretary.

(b) In accordance with 35 U.S.C. 202(c)(5) and the terms of the clauses at § 401.14, agencies shall not disclose such information to persons outside the government. Contractors will continue to provide confidential markings to help prevent inadvertent release outside the agency.

§ 401.9 Retention of rights by contractor employee inventor.

Agencies which allow an employee/inventor of the contractor to retain rights to a subject invention made under a funding agreement with a small business firm or nonprofit organization contractor, as authorized by 35 U.S.C. 202(d), will impose upon the inventor at least those conditions that would apply to a small business firm contractor under paragraphs (d)(1) and (3); (f)(4); (h); (i); and (j) of the clause at § 401.14(a).

§ 401.10 Government assignment to contractor of rights in invention of government employee.

In any case when a Federal employee is a co-inventor of any invention made under a funding agreement with a small business firm or nonprofit organization and the Federal agency employing such co-inventor transfers or reassigns the right it has acquired in the subject invention from its employee to the contractor as authorized by 35 U.S.C. 202(e), the assignment will be made subject to the same conditions as apply to the contractor under the patent rights clause of its funding agreement. Agencies may add additional conditions as long as they are consistent with 35 U.S.C. 201–206.

§ 401.11 Appeals.

(a) As used in this section, the term *standard clause* means the clause at § 401.14 of this part and the clauses previously prescribed by either OMB Circular A–124 or OMB Bulletin 81–22.

(b) The agency official initially authorized to take any of the following actions shall provide the contractor with a written statement of the basis for his or her action at the time the action is taken, including any relevant facts that were relied upon in taking the action.

(1) A refusal to grant an extension under paragraph (c)(4) of the standard clauses.

(2) A request for a conveyance of title under paragraph (d) of the standard clauses.

(3) A refusal to grant a waiver under paragraph (i) of the standard clauses.

(4) A refusal to approve an assignment under paragraph (k)(1) of the standard clauses.

(5) A refusal to grant an extension of the exclusive license period under paragraph (k)(2) of the clauses prescribed by either OMB Circular A–124 or OMB Bulletin 81–22.

(c) Each agency shall establish and publish procedures under which any of the agency actions listed in paragraph (b) of this section may be appealed to the head of the agency or designee. Review at this level shall consider both the factual and legal basis for the actions and its consistency with the policy and objectives of 35 U.S.C. 200–206.

(d) Appeals procedures established under paragraph (c) of this section shall include administrative due process procedures and standards for fact-finding at least comparable to those set forth in § 401.6 (e) through (g) whenever there is a dispute as to the factual basis for an agency request for a conveyance of title under paragraph (d) of the standard clause, including any dispute as to whether or not an invention is a subject invention.

(e) To the extent that any of the actions described in paragraph (b) of this section are subject to appeal under the

Contract Dispute Act, the procedures under the Act will satisfy the requirements of paragraphs (c) and (d) of this section.

§ 401.12 Licensing of background patent rights to third parties.

(a) A funding agreement with a small business firm or a domestic nonprofit organization will not contain a provision allowing a Federal agency to require the licensing to third parties of inventions owned by the contractor that are not subject inventions unless such provision has been approved by the agency head and a written justification has been signed by the agency head. Any such provision will clearly state whether the licensing may be required in connection with the practice of a subject invention, a specifically identified work object, or both. The agency head may not delegate the authority to approve such provisions or to sign the justification required for such provisions.

(b) A Federal agency will not require the licensing of third parties under any such provision unless the agency head determines that the use of the invention by others is necessary for the practice of a subject invention or for the use of a work object of the funding agreement and that such action is necessary to achieve practical application of the subject invention or work object. Any such determination will be on the record after an opportunity for an agency hearing. The contractor shall be given prompt notification of the determination by certified or registered mail. Any action commenced for judicial review of such determination shall be brought within sixty days after notification of such determination.

§ 401.13 Administration of patent rights clauses.

(a) In the event a subject invention is made under funding agreements of more than one agency, at the request of the contractor or on their own initiative the agencies shall designate one agency as responsible for administration of the rights of the government in the invention.

(b) Agencies shall promptly grant, unless there is a significant reason not to, a request by a nonprofit organization under paragraph (k)(2) of the clauses prescribed by either OMB Circular A–124 or OMB Bulletin 81–22 inasmuch as 35 U.S.C. 202(c)(7) has since been amended to eliminate the limitation on the duration of exclusive licenses. Similarly, unless there is a significant reason not to, agencies shall promptly approve an assignment by a nonprofit organization to an organization which has as one of its primary functions the management of inventions when a request for approval has been necessitated under paragraph (k)(1) of the clauses prescribed by either OMB Circular A–124 or OMB Bulletin 81–22 because the patent management organization is engaged in or holds a substantial interest in other organizations engaged in the manfacture or sale of products or the use of processes that might utilize the invention or be in competition with embodiments of the invention. As amended, 35 U.S.C. 202(c)(7) no longer contains this limitation. The policy of this subsection should also be followed in connection with similar approvals that may be required under Institutional Patent Agreements, other patent rights clauses, or waivers that predate Chapter 18 of Title 35, United States Code.

(c) The President's Patent Policy Memorandum of February 18, 1983, states that agencies should protect the confidentiality of invention disclosure, patent applications, and utilization reports required in performance or in consequence of awards to the extent permitted by 35 U.S.C. 205 or other applicable laws. The following requirements should be followed for funding agreements covered by and predating this part 401.

(1) To the extent authorized by 35 U.S.C. 205, agencies shall not disclose to third parties pursuant to requests under the Freedom of Information Act (FOIA) any information disclosing a subject invention for a reasonable time in order for a patent application to be filed. With respect to subject inventions of contractors that are small business firms or nonprofit organizations, a reasonable time shall be the time during which an initial patent application may be filed under paragraph (c) of the standard clause found at § 401.14(a) or such other clause may be

used in the funding agreement. However, an agency may disclose such subject inventions under the FOIA, at its discretion, after a contractor has elected not to retain title or after the time in which the contractor is required to make an election if the contractor has not made an election within that time. Similarly, an agency may honor a FOIA request at its discretion if it finds that the same information has previously been published by the inventor, contractor, or otherwise. If the agency plans to file itself when the contractor has not elected title, it may, of course, continue to avail itself of the authority of 35 U.S.C. 205.

(2) In accordance with 35 U.S.C. 205, agencies shall not disclose or release for a period of 18 months from the filing date of the patent application to third parties pursuant to requests under the Freedom of Information Act, or otherwise, copies of any document which the agency obtained under this clause which is part of an application for patent with the U.S. Patent and Trademark Office or any foreign patent office filed by the contractor (or its assignees, licensees, or employees) on a subject invention to which the contractor has elected to retain title. This prohibition does not extend to disclosure to other government agencies or contractors of government agencies under an obligation to maintain such information in confidence.

(3) A number of agencies have policies to encourage public dissemination of the results of work supported by the agency through publication in government or other publications of technical reports of contractors or others. In recognition of the fact that such publication, if it included descriptions of a subject invention could create bars to obtaining patent protection, it is the policy of the executive branch that agencies will not include in such publication programs copies of disclosures of inventions submitted by small business firms or nonprofit organizations, pursuant to paragraph (c) of the standard clause found at §401.14(a), except that under the same circumstances under which agencies are authorized to release such information pursuant to FOIA requests under paragraph (c)(1) of this section, agencies may publish such disclosures.

(4) Nothing in this paragraph is intended to preclude agencies from including in the publication activities described in the first sentence of paragraph (c)(3), the publication of materials describing a subject invention to the extent such materials were provided as part of a technical report or other submission of the contractor which were submitted independently of the requirements of the patent rights provisions of the contract. However, if a small business firm or nonprofit organization notifies the agency that a particular report or other submission contains a disclosure of a subject invention to which it has elected title or may elect title, the agency shall use reasonable efforts to restrict its publication of the material for six months from date of its receipt of the report or submission or, if earlier, until the contractor has filed an initial patent application. Agencies, of course, retain the discretion to delay publication for additional periods of time.

(5) Nothing in this paragraph is intended to limit the authority of agencies provided in 35 U.S.C. 205 in circumstances not specifically described in this paragraph.

[52 FR 8554, Mar. 18, 1987, as amended at 60 FR 41812, Aug. 14, 1995]

§ 401.14 Standard patent rights clauses.

(a) The following is the standard patent rights clause to be used as specified in §401.3(a).

Patent Rights (Small Business Firms and Nonprofit Organizations)

(a) Definitions

(1) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).

(2) *Subject invention* means any invention of the *contractor* conceived or first actually reduced to practice in the performance of work under this *contract*, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d))

must also occur during the period of *contract* performance.

(3) *Practical Application* means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) *Made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) *Small Business Firm* means a small business concern as defined at section 2 of Pub. L. 85–536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3–8 and 13 CFR 121.3–12, respectively, will be used.

(6) *Nonprofit Organization* means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) Allocation of Principal Rights

The *Contractor* may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the *Contractor* retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Application by *Contractor*

(1) The *contractor* will disclose each subject invention to the *Federal Agency* within two months after the inventor discloses it in writing to *contractor* personnel responsible for patent matters. The disclosure to the agency shall be in the form of a written report and shall identify the *contract* under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the *agency*, the *Contractor* will promptly notify the *agency* of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the *contractor*.

(2) The *Contractor* will elect in writing whether or not to retain title to any such invention by notifying the *Federal agency* within two years of disclosure to the *Federal agency*. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the *agency* to a date that is no more than 60 days prior to the end of the statutory period.

(3) The *contractor* will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The *contractor* will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the *agency*, be granted.

(d) Conditions When the Government May Obtain Title

The *contractor* will convey to the *Federal agency*, upon written request, title to any subject invention—

(1) If the *contractor* fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that the *agency* may only request title within 60 days after learning of the failure of the *contractor* to disclose or elect within the specified times.

(2) In those countries in which the *contractor* fails to file patent applications within the times specified in (c) above; provided, however, that if the *contractor* has filed a patent application in a country after the times specified in (c) above, but prior to its receipt of the written request of the *Federal agency*, the *contractor* shall continue to retain title in that country.

(3) In any country in which the *contractor* decides not to continue the prosecution of

any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to *Contractor* and Protection of the *Contractor* Right to File

(1) The *contractor* will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the *contractor* fails to disclose the invention within the times specified in (c), above. The *contractor's* license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the *contractor* is a party and includes the right to grant sublicenses of the same scope to the extent the *contractor* was legally obligated to do so at the time the *contract* was awarded. The license is transferable only with the approval of the *Federal agency* except when transferred to the sucessor of that party of the *contractor's* business to which the invention pertains.

(2) The *contractor's* domestic license may be revoked or modified by the *funding Federal agency* to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and *agency* licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the *contractor* has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the *funding Federal agency* to the extent the *contractor*, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the *funding Federal agency* will furnish the *contractor* a written notice of its intention to revoke or modify the license, and the *contractor* will be allowed thirty days (or such other time as may be authorized by the *funding Federal agency* for good cause shown by the *contractor*) after the notice to show cause why the license should not be revoked or modified. The *contractor* has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and *agency* regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) *Contractor* Action to Protect the Government's Interest

(1) The *contractor* agrees to execute or to have executed and promptly deliver to the *Federal agency* all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the *contractor* elects to retain title, and (ii) convey title to the *Federal agency* when requested under paragraph (d) above and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The *contractor* agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the *contractor* each subject invention made under *contract* in order that the *contractor* can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The *contractor* shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The *contractor* will notify the *Federal agency* of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The *contractor* agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, ''This invention was made with government support under (identify the *contract*) awarded by (identify the Federal agency). The government has certain rights in the invention.''

(g) Subcontracts

(1) The *contractor* will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the *contractor* in this clause, and the *contractor* will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The *contractor* will include in all other subcontracts, regardless of tier, for experimental developmental or research work the patent rights clause required by (*cite section of agency implementing regulations or FAR*).

(3) In the case of subcontracts, at any tier, when the prime award with the Federal agency was a contract (but not a grant or cooperative agreement), the *agency*, subcontractor, and the contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Federal agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) Reporting on Utilization of Subject Inventions

The *Contractor* agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the *contractor* or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commerical sale or use, gross royalties received by the contractor, and such other data and information as the *agency* may reasonably specify. The *contractor* also agrees to provide additional reports as may be requested by the *agency* in connection with any march-in proceeding undertaken by the *agency* in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), the *agency* agrees it will not disclose such information to persons outside the government without permission of the *contractor*.

(i) Preference for United States Industry

Notwithstanding any other provision of this clause, the *contractor* agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the *Federal agency* upon a showing by the *contractor* or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commerically feasible.

(j) March-in Rights

The *contractor* agrees that with respect to any subject invention in which it has acquired title, the *Federal agency* has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the *agency* to require the *contractor*, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the *contractor*, assignee, or exclusive licensee refuses such a request the *Federal agency* has the right to grant such a license itself if the *Federal agency* determines that:

(1) Such action is necessary because the *contractor* or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the *contractor*, assignee or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the *contractor*, assignee or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for *Contracts* with Nonprofit Organizations

If the *contractor* is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the *Federal agency*, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the *contractor;*

(2) The *contractor* will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the *contractor* with respect to subject inventions, after payment of expenses (including payments to inventors) incidential to the administration of subject inventions, will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the *contractor* determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans

or proposals from applicants that are not small business firms; provided, that the *contractor* is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the *contractor*. However, the *contractor* agrees that the Secretary may review the *contractor's* licensing program and decisions regarding small business applicants, and the *contractor* will negotiate changes to its licensing policies, procedures, or practices with the Secretary when the Secretary's review discloses that the *contractor* could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communication

(Complete According to Instructions at 401.5(b))

(b) When the Department of Energy (DOE) determines to use alternative provisions under § 401.3(a)(4), the standard clause at § 401.14(a), of this section, shall be used with the following modifications unless a substitute clause is drafted by DOE:

(1) The title of the clause shall be changed to read as follows: *Patent Rights to Nonprofit DOE Facility Operators*

(2) Add an ''(A)'' after ''(1)'' in paragraph (c)(1) and add subparagraphs (B) and (C) to paragraph (c)(1) as follows:

(B) If the subject invention occurred under activities funded by the naval nuclear propulsion or weapons related programs of *DOE*, then the provisions of this subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). In such cases the contractor agrees to assign the government the entire right, title, and interest thereto throughout the world in and to the subject invention except to the extent that rights are retained by the contractor through a greater rights determination or under paragraph (e), below. The contractor, or an employee-inventor, with authorization of the contractor, may submit a request for greater rights at the time the invention is disclosed or within a reasonable time thereafter. *DOE* will process such a request in accordance with procedures at 37 CFR 401.15. Each determination of greater rights will be subject to paragraphs (h)–(k) of this clause and such additional conditions, if any, deemed to be appropriate by the *Department of Energy*.

(C) At the time an invention is disclosed in accordance with (c)(1)(A) above, or within 90 days thereafter, the contractor will submit a written statement as to whether or not the invention occurred under a naval nuclear propulsion or weapons-related program of the *Department of Energy*. If this statement is not filed within this time, subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). The contractor statement will be deemed conclusive unless, within 60 days thereafter, the Contracting Officer disagrees in writing, in which case the determination of the Contracting Officer will be deemed conclusive unless the contractor files a claim under the Contract Disputes Act within 60 days after the Contracting Officer's determination. Pending resolution of the matter, the invention will be subject to subparagraph (c)(1)(B).

(3) Paragraph (k)(3) of the clause will be modified as prescribed at § 401.5(g).

(c) As prescribed in § 401.3, replace (b) of the basic clause with the following paragraphs (1) and (2):

(b) Allocation of principal rights. (1) The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause, including (2) below, and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(2) If the Contractor performs services at a Government owned and operated laboratory or at a Government owned and contractor operated laboratory directed by the Government to fulfill the Government's obligations under a Cooperative Research and Development Agreement (CRADA) authorized by 15 U.S.C. 3710a, the Government may require the Contractor to negotiate an agreement with the CRADA collaborating party or parties regarding the allocation of rights to any subject invention the Contractor makes, solely or jointly, under the CRADA. The agreement shall be negotiated prior to the Contractor undertaking the CRADA work or, with the permission of the Government, upon the identification of a subject invention. In the absence of such an agreement, the Contractor agrees to grant the collaborating party or parties an option for a license in its inventions of the same scope and terms set forth in the CRADA for inventions made by the Government.

[52 FR 8554, Mar. 18, 1987, as amended at 69 FR 17301, Apr. 2, 2004]

§ 401.15 Deferred determinations.

(a) This section applies to requests for greater rights in subject inventions made by contractors when deferred determination provisions were included in the funding agreement because one

of the exceptions at §401.3(a) was applied, except that the Department of Energy is authorized to process deferred determinations either in accordance with its waiver regulations or this section. A contractor requesting greater rights should include with its request information on its plans and intentions to bring the invention to practical application. Within 90 days after receiving a request and supporting information, or sooner if a statutory bar to patenting is imminent, the agency should seek to make a determination. In any event, if a bar to patenting is imminent, unless the agency plans to file on its own, it shall authorize the contractor to file a patent application pending a determination by the agency. Such a filing shall normally be at the contractor's own risk and expense. However, if the agency subsequently refuses to allow the contractor to retain title and elects to proceed with the patent application under government ownership, it shall reimburse the contractor for the cost of preparing and filing the patent application.

(b) If the circumstances of concerns which originally led the agency to invoke an exception under §401.3(a) are not applicable to the actual subject invention or are no longer valid because of subsequent events, the agency should allow the contractor to retain title to the invention on the same conditions as would have applied if the standard clause at §401.14(a) had been used originally, unless it has been licensed.

(c) If paragraph (b) is not applicable the agency shall make its determination based on an assessment whether its own plans regarding the invention will better promote the policies and objectives of 35 U.S.C. 200 than will contractor ownership of the invention. Moreover, if the agency is concerned only about specific uses or applications of the invention, it shall consider leaving title in the contractor with additional conditions imposed upon the contractor's use of the invention for such applications or with expanded government license rights in such applications.

(d) A determination not to allow the contractor to retain title to a subject invention or to restrict or condition its title with conditions differing from those in the clause at §401.14(a), unless made by the head of the agency, shall be appealable by the contractor to an agency official at a level above the person who made the determination. This appeal shall be subject to the procedures applicable to appeals under §401.11 of this part.

§401.16 Electronic filing.

Unless otherwise requested or directed by the agency,

(a) The written report required in (c)(1) of the standard clause in §401.14(a) may be electronically filed;

(b) The written election required in (c)(2) of the standard clause in §401.14(a) may be electronically filed; and

(c) The close-out report in (f)(1) and the information identified in (f)(2) and (f)(3) of §401.5 may be electronically filed.

[60 FR 41812, Aug. 14, 1995]

§401.17 Submissions and inquiries.

All submissions or inquiries should be directed to Director, Technology Competitiveness Staff, Office of Technology Policy, Technology Administration, telephone number 202–482–2100, Room H4418, U.S. Department of Commerce, Washington, DC 20230.

[60 FR 41812, Aug. 14, 1995]

PART 404—LICENSING OF GOVERNMENT OWNED INVENTIONS

Sec.

AUTHORITY: 35 U.S.C. 207–209.

Section 7386 related to definitions for purposes of former sections 7386 to 7386k of this title.

Section 7386a related to reprogramming of amounts appropriated pursuant to a Department of Energy national security authorization.

Section 7386b related to minor construction projects.

Section 7386c related to limits on construction projects.

Section 7386d related to fund transfer authority.

Section 7386e related to conceptual and construction design.

Section 7386f related to authority for emergency planning, design, and construction activities.

Section 7386g related to scope of authority to carry out plant projects.

Section 7386h related to availability of funds.

Section 7386i related to transfer of defense environmental management funds.

Section 7386j related to transfer of weapons activities funds.

Section 7386k related to funds available for all national security programs of the Department of Energy.

CHAPTER 85—AIR POLLUTION PREVENTION AND CONTROL

SUBCHAPTER I—PROGRAMS AND ACTIVITIES

PART A—AIR QUALITY AND EMISSION LIMITATIONS

PART B—OZONE PROTECTION

7450 to 7459. Repealed.

PART C—PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

SUBPART I—CLEAN AIR

SUBPART II—VISIBILITY PROTECTION

PART D—PLAN REQUIREMENTS FOR NONATTAINMENT AREAS

SUBPART 1—NONATTAINMENT AREAS IN GENERAL

SUBPART 2—ADDITIONAL PROVISIONS FOR OZONE NONATTAINMENT AREAS

SUBPART 3—ADDITIONAL PROVISIONS FOR CARBON MONOXIDE NONATTAINMENT AREAS

SUBPART 4—ADDITIONAL PROVISIONS FOR PARTICULATE MATTER NONATTAINMENT AREAS

SUBPART 5—ADDITIONAL PROVISIONS FOR AREAS DESIGNATED NONATTAINMENT FOR SULFUR OXIDES, NITROGEN DIOXIDE, OR LEAD

SUBPART 6—SAVINGS PROVISIONS

SUBCHAPTER II—EMISSION STANDARDS FOR MOVING SOURCES

PART A—MOTOR VEHICLE EMISSION AND FUEL STANDARDS

CODIFICATION

Act July 14, 1955, ch. 360, 69 Stat. 322, as amended, known as the Clean Air Act, which was formerly classified to chapter 15B (§ 1857 et seq.) of this title, was completely revised by Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 685, and was reclassified to this chapter.

SUBCHAPTER I—PROGRAMS AND ACTIVITIES

PART A—AIR QUALITY AND EMISSION LIMITATIONS

CODIFICATION

Pub. L. 95–95, title I, § 117(a), Aug. 7, 1977, 91 Stat. 712, designated sections 7401 to 7428 of this title as part A.

§ 7401. Congressional findings and declaration of purpose

(a) Findings

The Congress finds—

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

(3) that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments; and

(4) that Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution.

(b) Declaration

The purposes of this subchapter are—

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

(c) Pollution prevention

A primary goal of this chapter is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, consistent with the provisions of this chapter, for pollution prevention.

(July 14, 1955, ch. 360, title I, §101, formerly §1, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 392; renumbered §101 and amended Pub. L. 89–272, title I, §101(2), (3), Oct. 20, 1965, 79 Stat. 992; Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 485; Pub. L. 101–549, title I, §108(k), Nov. 15, 1990, 104 Stat. 2468.)

CODIFICATION

Section was formerly classified to section 1857 of this title.

PRIOR PROVISIONS

Provisions similar to those in this section were contained in a prior section 1857 of this title, act of July 14, 1955, ch. 360, §1, 69 Stat. 322, prior to the general amendment of this chapter by Pub. L. 88–206.

AMENDMENTS

1990—Subsec. (a)(3). Pub. L. 101–549, §108(k)(1), amended par. (3) generally. Prior to amendment, par. (3) read as follows: ''that the prevention and control of air pollution at its source is the primary responsibility of States and local governments; and''.

Subsec. (b)(4). Pub. L. 101–549, §108(k)(2), inserted ''prevention and'' after ''pollution''.

Subsec. (c). Pub. L. 101–549, §108(k)(3), added subsec. (c).

1967—Subsec. (b)(1). Pub. L. 90–148 inserted ''and enhance the quality of'' after ''to protect''.

1965—Subsec. (b). Pub. L. 89–272 substituted ''this title'' for ''this Act'', which for purposes of codification has been changed to ''this subchapter''.

EFFECTIVE DATE OF 1990 AMENDMENT

Pub. L. 101–549, title VII, §711(b), Nov. 15, 1990, 104 Stat. 2684, provided that:

''(1) Except as otherwise expressly provided, the amendments made by this Act [see Tables for classification] shall be effective on the date of enactment of this Act [Nov. 15, 1990].

''(2) The Administrator's authority to assess civil penalties under section 205(c) of the Clean Air Act [42 U.S.C. 7524(c)], as amended by this Act, shall apply to violations that occur or continue on or after the date of enactment of this Act. Civil penalties for violations that occur prior to such date and do not continue after such date shall be assessed in accordance with the provisions of the Clean Air Act [42 U.S.C. 7401 et seq.] in effect immediately prior to the date of enactment of this Act.

''(3) The civil penalties prescribed under sections 205(a) and 211(d)(1) of the Clean Air Act [42 U.S.C. 7524(a), 7545(d)(1)], as amended by this Act, shall apply to violations that occur on or after the date of enactment of this Act. Violations that occur prior to such date shall be subject to the civil penalty provisions prescribed in sections 205(a) and 211(d) of the Clean Air Act in effect immediately prior to the enactment of this Act. The injunctive authority prescribed under section 211(d)(2) of the Clean Air Act, as amended by this Act, shall apply to violations that occur or continue on or after the date of enactment of this Act.

''(4) For purposes of paragraphs (2) and (3), where the date of a violation cannot be determined it will be assumed to be the date on which the violation is discovered.''

EFFECTIVE DATE OF 1977 AMENDMENT; PENDING ACTIONS; CONTINUATION OF RULES, CONTRACTS, AUTHORIZATIONS, ETC.; IMPLEMENTATION PLANS

Pub. L. 95–95, title IV, §406, Aug. 7, 1977, 91 Stat. 795, as amended by Pub. L. 95–190, §14(b)(6), Nov. 16, 1977, 91 Stat. 1405, provided that:

''(a) No suit, action, or other proceeding lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under the Clean Air Act [this chapter], as in effect immediately prior to the date of enactment of this Act [Aug. 7, 1977] shall abate by reason of the taking effect of the amendments made by this Act [see Short Title of 1977 Amendment note below]. The court may, on its own motion or that of any party made at any time within twelve months after such taking effect, allow the same to be maintained by or against the Administrator or such officer or employee.

''(b) All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to the Clean Air Act [this chapter], as in effect immediately prior to the date of enactment of this Act [Aug. 7, 1977], and pertaining to any functions, powers, requirements, and duties under the Clean Air Act, as in effect immediately prior to the date of enactment of this Act, and not suspended by the Administrator or the courts, shall continue in full force and effect after the date of enactment of this Act until modified or rescinded in accordance with the Clean Air Act as amended by this Act [see Short Title of 1977 Amendment note below].

''(c) Nothing in this Act [see Short Title of 1977 Amendment note below] nor any action taken pursuant to this Act shall in any way affect any requirement of an approved implementation plan in effect under section 110 of the Clean Air Act [section 7410 of this title] or any other provision of the Act in effect under the Clean Air Act before the date of enactment of this section [Aug. 7, 1977] until modified or rescinded in accordance with the Clean Air Act [this chapter] as amended by this Act [see Short Title of 1977 Amendment note below].

''(d)(1) Except as otherwise expressly provided, the amendments made by this Act [see Short Title of 1977 Amendment note below] shall be effective on date of enactment [Aug. 7, 1977].

''(2) Except as otherwise expressly provided, each State required to revise its applicable implementation plan by reason of any amendment made by this Act [see Short Title of 1977 Amendment note below] shall adopt and submit to the Administrator of the Environmental Protection Administration such plan revision before the later of the date—

''(A) one year after the date of enactment of this Act [Aug. 7, 1977], or

''(B) nine months after the date of promulgation by the Administrator of the Environmental Protection Administration of any regulations under an amendment made by this Act which are necessary for the approval of such plan revision.''

SHORT TITLE OF 1999 AMENDMENT

Pub. L. 106–40, §1, Aug. 5, 1999, 113 Stat. 207, provided that: ''This Act [amending section 7412 of this title and enacting provisions set out as notes under section 7412 of this title] may be cited as the 'Chemical Safety Information, Site Security and Fuels Regulatory Relief Act'.''

SHORT TITLE OF 1998 AMENDMENT

Pub. L. 105–286, §1, Oct. 27, 1998, 112 Stat. 2773, provided that: ''This Act [amending section 7511b of this title and enacting provisions set out as a note under section 7511b of this title] may be cited as the 'Border Smog Reduction Act of 1998'.''

SHORT TITLE OF 1990 AMENDMENT

Pub. L. 101–549, Nov. 15, 1990, 104 Stat. 2399, is popularly known as the ''Clean Air Act Amendments of 1990''. See Tables for classification.

SHORT TITLE OF 1981 AMENDMENT

Pub. L. 97–23, §1, July 17, 1981, 95 Stat. 139, provided: ''That this Act [amending sections 7410 and 7413 of this title] may be cited as the 'Steel Industry Compliance Extension Act of 1981'.''

SHORT TITLE OF 1977 AMENDMENT

Pub. L. 95–95, §1, Aug. 7, 1977, 91 Stat. 685, provided that: ''This Act [enacting sections 4362, 7419 to 7428, 7450 to 7459, 7470 to 7479, 7491, 7501 to 7508, 7548, 7549, 7551, 7617 to 7625, and 7626 of this title, amending sections 7403, 7405, 7407 to 7415, 7417, 7418, 7521 to 7525, 7541, 7543, 7544, 7545, 7550, 7571, 7601 to 7605, 7607, 7612, 7613, and 7616 of this title, repealing section 1857c–10 of this title, and enacting provisions set out as notes under this section, sections 7403, 7422, 7470, 7479, 7502, 7521, 7548, and 7621 of this title, and section 792 of Title 15, Commerce and Trade] may be cited as the 'Clean Air Act Amendments of 1977'.''

SHORT TITLE OF 1970 AMENDMENT

Pub. L. 91–604, §1, Dec. 31, 1970, 84 Stat. 1676, provided: ''That this Act [amending this chapter generally] may be cited as the 'Clean Air Amendments of 1970'.''

SHORT TITLE OF 1967 AMENDMENT

Pub. L. 90–148, §1, Nov. 21, 1967, 81 Stat. 485, provided: ''That this Act [amending this chapter generally] may be cited as the 'Air Quality Act of 1967'.''

SHORT TITLE OF 1966 AMENDMENT

Pub. L. 89–675, §1, Oct. 15, 1966, 80 Stat. 954, provided: ''That this Act [amending sections 7405 and 7616 of this title and repealing section 1857f–8 of this title] may be cited as the 'Clean Air Act Amendments of 1966'.''

SHORT TITLE

Act July 14, 1955, ch. 360, title III, §317, formerly §14, as added by Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 401; renumbered §307 by Pub. L. 89–272, title I, §101(4), Oct. 20, 1965, 79 Stat. 992; renumbered §310 by Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 499; renumbered §317 by Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1705, provided that: ''This Act [enacting this chapter] may be cited as the 'Clean Air Act'.''

Act July 14, 1955, ch. 360, title II, §201, as added by Pub. L. 89–272, title I, §101(8), Oct. 20, 1965, 79 Stat. 992, and amended by Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 499, provided that: ''This title [enacting subchapter II of this chapter] may be cited as the 'National Emission Standards Act'.'' Prior to its amendment by Pub. L. 90–148, title II of act June 14, 1955, was known as the ''Motor Vehicle Air Pollution Control Act''.

Act July 14, 1955, ch. 360, title IV, §401, as added by Dec. 31, 1970, Pub. L. 91–604, §14, 84 Stat. 1709, provided that: ''This title [enacting subchapter IV of this chapter] may be cited as the 'Noise Pollution and Abatement Act of 1970'.''

SAVINGS PROVISION

Pub. L. 101–549, title VII, §711(a), Nov. 15, 1990, 104 Stat. 2684, provided that: ''Except as otherwise expressly provided in this Act [see Tables for classification], no suit, action, or other proceeding lawfully commenced by the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under the Clean Air Act [42 U.S.C. 7401 et seq.], as in effect immediately prior to the date of enactment of this Act [Nov. 15, 1990], shall abate by reason of the taking effect of the amendments made by this Act.''

TRANSFER OF FUNCTIONS

Reorg. Plan No. 3 of 1970, §2(a)(3), eff. Dec. 2, 1970, 35 F.R. 15623, 84 Stat. 2086, transferred to Administrator of Environmental Protection Agency functions vested by law in Secretary of Health, Education, and Welfare or in Department of Health, Education, and Welfare which are administered through Environmental Health Service, including functions exercised by National Air Pollution Control Administration, and Environmental Control Administration's Bureau of Solid Waste Management, Bureau of Water Hygiene, and Bureau of Radiological Health, except insofar as functions carried out by Bureau of Radiological Health pertain to regulation of radiation from consumer products, including electronic product radiation, radiation as used in healing arts, occupational exposure to radiation, and research, technical assistance, and training related to radiation from consumer products, radiation as used in healing arts, and occupational exposure to radiation.

IMPACT ON SMALL COMMUNITIES

Pub. L. 101–549, title VIII, §810, Nov. 15, 1990, 104 Stat. 2690, provided that: ''Before implementing a provision of this Act [see Tables for classification], the Administrator of the Environmental Protection Agency shall consult with the Small Communities Coordinator of the Environmental Protection Agency to determine the impact of such provision on small communities, including the estimated cost of compliance with such provision.''

RADON ASSESSMENT AND MITIGATION

Pub. L. 99–499, title I, §118(k), Oct. 17, 1986, 100 Stat. 1659, as amended by Pub. L. 105–362, title V, §501(i), Nov. 10, 1998, 112 Stat. 3284, provided that:

''(1) NATIONAL ASSESSMENT OF RADON GAS.—No later than one year after the enactment of this Act [Oct. 17,

1986], the Administrator shall submit to the Congress a report which shall, to the extent possible—

''(A) identify the locations in the United States where radon is found in structures where people normally live or work, including educational institutions;

''(B) assess the levels of radon gas that are present in such structures;

''(C) determine the level of radon gas and radon daughters which poses a threat to human health and assess for each location identified under subparagraph (A) the extent of the threat to human health;

''(D) determine methods of reducing or eliminating the threat to human health of radon gas and radon daughters; and

''(E) include guidance and public information materials based on the findings or research of mitigating radon.

''(2) RADON MITIGATION DEMONSTRATION PROGRAM.—

''(A) DEMONSTRATION PROGRAM.—The Administrator shall conduct a demonstration program to test methods and technologies of reducing or eliminating radon gas and radon daughters where it poses a threat to human health. The Administrator shall take into consideration any demonstration program underway in the Reading Prong of Pennsylvania, New Jersey, and New York and at other sites prior to enactment. The demonstration program under this section shall be conducted in the Reading Prong, and at such other sites as the Administrator considers appropriate.

''(B) LIABILITY.—Liability, if any, for persons undertaking activities pursuant to the radon mitigation demonstration program authorized under this subsection shall be determined under principles of existing law.

''(3) CONSTRUCTION OF SECTION.—Nothing in this subsection shall be construed to authorize the Administrator to carry out any regulatory program or any activity other than research, development, and related reporting, information dissemination, and coordination activities specified in this subsection. Nothing in paragraph (1) or (2) shall be construed to limit the authority of the Administrator or of any other agency or instrumentality of the United States under any other authority of law.''

SPILL CONTROL TECHNOLOGY

Pub. L. 99–499, title I, §118(n), Oct. 17, 1986, 100 Stat. 1660, provided that:

''(1) ESTABLISHMENT OF PROGRAM.—Within 180 days of enactment of this subsection [Oct. 17, 1986], the Secretary of the United States Department of Energy is directed to carry out a program of testing and evaluation of technologies which may be utilized in responding to liquefied gaseous and other hazardous substance spills at the Liquefied Gaseous Fuels Spill Test Facility that threaten public health or the environment.

''(2) TECHNOLOGY TRANSFER.—In carrying out the program established under this subsection, the Secretary shall conduct a technology transfer program that, at a minimum—

''(A) documents and archives spill control technology;

''(B) investigates and analyzes significant hazardous spill incidents;

''(C) develops and provides generic emergency action plans;

''(D) documents and archives spill test results;

''(E) develops emergency action plans to respond to spills;

''(F) conducts training of spill response personnel; and

''(G) establishes safety standards for personnel engaged in spill response activities.

''(3) CONTRACTS AND GRANTS.—The Secretary is directed to enter into contracts and grants with a nonprofit organization in Albany County, Wyoming, that is capable of providing the necessary technical support and which is involved in environmental activities related to such hazardous substance related emergencies.

''(4) USE OF SITE.—The Secretary shall arrange for the use of the Liquefied Gaseous Fuels Spill Test Facility to carry out the provisions of this subsection.''

RADON GAS AND INDOOR AIR QUALITY RESEARCH

Pub. L. 99–499, title IV, Oct. 17, 1986, 100 Stat. 1758, provided that:

''SEC. 401. SHORT TITLE.

''This title may be cited as the 'Radon Gas and Indoor Air Quality Research Act of 1986'.

''SEC. 402. FINDINGS.

''The Congress finds that:

''(1) High levels of radon gas pose a serious health threat in structures in certain areas of the country.

''(2) Various scientific studies have suggested that exposure to radon, including exposure to naturally occurring radon and indoor air pollutants, poses a public health risk.

''(3) Existing Federal radon and indoor air pollutant research programs are fragmented and underfunded.

''(4) An adequate information base concerning exposure to radon and indoor air pollutants should be developed by the appropriate Federal agencies.

''SEC. 403. RADON GAS AND INDOOR AIR QUALITY RESEARCH PROGRAM.

''(a) DESIGN OF PROGRAM.—The Administrator of the Environmental Protection Agency shall establish a research program with respect to radon gas and indoor air quality. Such program shall be designed to—

''(1) gather data and information on all aspects of indoor air quality in order to contribute to the understanding of health problems associated with the existence of air pollutants in the indoor environment;

''(2) coordinate Federal, State, local, and private research and development efforts relating to the improvement of indoor air quality; and

''(3) assess appropriate Federal Government actions to mitigate the environmental and health risks associated with indoor air quality problems.

''(b) PROGRAM REQUIREMENTS.—The research program required under this section shall include—

''(1) research and development concerning the identification, characterization, and monitoring of the sources and levels of indoor air pollution, including radon, which includes research and development relating to—

''(A) the measurement of various pollutant concentrations and their strengths and sources,

''(B) high-risk building types, and

''(C) instruments for indoor air quality data collection;

''(2) research relating to the effects of indoor air pollution and radon on human health;

''(3) research and development relating to control technologies or other mitigation measures to prevent or abate indoor air pollution (including the development, evaluation, and testing of individual and generic control devices and systems);

''(4) demonstration of methods for reducing or eliminating indoor air pollution and radon, including sealing, venting, and other methods that the Administrator determines may be effective;

''(5) research, to be carried out in conjunction with the Secretary of Housing and Urban Development, for the purpose of developing—

''(A) methods for assessing the potential for radon contamination of new construction, including (but not limited to) consideration of the moisture content of soil, porosity of soil, and radon content of soil; and

''(B) design measures to avoid indoor air pollution; and

''(6) the dissemination of information to assure the public availability of the findings of the activities under this section.

''(c) ADVISORY COMMITTEES.—The Administrator shall establish a committee comprised of individuals representing Federal agencies concerned with various as-

pects of indoor air quality and an advisory group comprised of individuals representing the States, the scientific community, industry, and public interest organizations to assist him in carrying out the research program for radon gas and indoor air quality.

''(d) IMPLEMENTATION PLAN.—Not later than 90 days after the enactment of this Act [Oct. 17, 1986], the Administrator shall submit to the Congress a plan for implementation of the research program under this section. Such plan shall also be submitted to the EPA Science Advisory Board, which shall, within a reasonable period of time, submit its comments on such plan to Congress.

''(e) REPORT.—Not later than 2 years after the enactment of this Act [Oct. 17, 1986], the Administrator shall submit to Congress a report respecting his activities under this section and making such recommendations as appropriate.

''SEC. 404. CONSTRUCTION OF TITLE.

''Nothing in this title shall be construed to authorize the Administrator to carry out any regulatory program or any activity other than research, development, and related reporting, information dissemination, and coordination activities specified in this title. Nothing in this title shall be construed to limit the authority of the Administrator or of any other agency or instrumentality of the United States under any other authority of law.

''SEC. 405. AUTHORIZATIONS.

''There are authorized to be appropriated to carry out the activities under this title and under section 118(k) of the Superfund Amendments and Reauthorization Act of 1986 (relating to radon gas assessment and demonstration program) [section 118(k) of Pub. L. 99–499, set out as a note above] not to exceed $5,000,000 for each of the fiscal years 1987, 1988, and 1989. Of such sums appropriated in fiscal years 1987 and 1988, two-fifths shall be reserved for the implementation of section 118(k)(2).''

STUDY OF ODORS AND ODOROUS EMISSIONS

Pub. L. 95–95, title IV, § 403(b), Aug. 7, 1977, 91 Stat. 792, directed Administrator of Environmental Protection Agency to conduct a study and report to Congress not later than Jan. 1, 1979, on effects on public health and welfare of odors and odorous emissions, source of such emissions, technology or other measures available for control of such emissions and costs of such technology or measures, and costs and benefits of alternative measures or strategies to abate such emissions.

LIST OF CHEMICAL CONTAMINANTS FROM ENVIRONMENTAL POLLUTION FOUND IN HUMAN TISSUE

Pub. L. 95–95, title IV, § 403(c), Aug. 7, 1977, 91 Stat. 792, directed Administrator of EPA, not later than twelve months after Aug. 7, 1977, to publish throughout the United States a list of all known chemical contaminants resulting from environmental pollution which have been found in human tissue including blood, urine, breast milk, and all other human tissue, such list to be prepared for the United States and to indicate approximate number of cases, range of levels found, and mean levels found, directed Administrator, not later than eighteen months after Aug. 7, 1977, to publish in same manner an explanation of what is known about the manner in which chemicals entered the environment and thereafter human tissue, and directed Administrator, in consultation with National Institutes of Health, the National Center for Health Statistics, and the National Center for Health Services Research and Development, to, if feasible, conduct an epidemiological study to demonstrate the relationship between levels of chemicals in the environment and in human tissue, such study to be made in appropriate regions or areas of the United States in order to determine any different results in such regions or areas, and the results of such study to be reported, as soon as practicable, to appropriate committee of Congress.

STUDY ON REGIONAL AIR QUALITY

Pub. L. 95–95, title IV, § 403(d), Aug. 7, 1977, 91 Stat. 793, directed Administrator of EPA to conduct a study of air quality in various areas throughout the country including the gulf coast region, such study to include analysis of liquid and solid aerosols and other fine particulate matter and contribution of such substances to visibility and public health problems in such areas, with Administrator to use environmental health experts from the National Institutes of Health and other outside agencies and organizations.

RAILROAD EMISSION STUDY

Pub. L. 95–95, title IV, § 404, Aug. 7, 1977, 91 Stat. 793, as amended by H. Res. 549, Mar. 25, 1980, directed Administrator of EPA to conduct a study and investigation of emissions of air pollutants from railroad locomotives, locomotive engines, and secondary power sources on railroad rolling stock, in order to determine extent to which such emissions affect air quality in air quality control regions throughout the United States, technological feasibility and current state of technology for controlling such emissions, and status and effect of current and proposed State and local regulations affecting such emissions, and within one hundred and eighty days after commencing such study and investigation, Administrator to submit a report of such study and investigation, together with recommendations for appropriate legislation, to Senate Committee on Environment and Public Works and House Committee on Energy and Commerce.

STUDY AND REPORT CONCERNING ECONOMIC APPROACHES TO CONTROLLING AIR POLLUTION

Pub. L. 95–95, title IV, § 405, Aug. 7, 1977, 91 Stat. 794, directed Administrator, in conjunction with Council of Economic Advisors, to undertake a study and assessment of economic measures for control of air pollution which could strengthen effectiveness of existing methods of controlling air pollution, provide incentives to abate air pollution greater than that required by Clean Air Act, and serve as primary incentive for controlling air pollution problems not addressed by Clean Air Act, and directed that not later than 2 years after Aug. 7, 1977, Administrator and Council conclude study and submit a report to President and Congress.

NATIONAL INDUSTRIAL POLLUTION CONTROL COUNCIL

For provisions relating to establishment of National Industrial Pollution Control Council, see Ex. Ord. No. 11523, Apr. 9, 1970, 35 F.R. 5993, set out as a note under section 4321 of this title.

FEDERAL COMPLIANCE WITH POLLUTION CONTROL STANDARDS

For provisions relating to responsibility of head of each Executive agency for compliance with applicable pollution control standards, see Ex. Ord. No. 12088, Oct. 13, 1978, 43 F.R. 47707, set out as a note under section 4321 of this title.

EXECUTIVE ORDER NO. 10779

Ex. Ord. No. 10779, Aug. 21, 1958, 23 F.R. 6487, which related to cooperation of Federal agencies with State and local authorities, was superseded by Ex. Ord. No. 11282, May 26, 1966, 31 F.R. 7663, formerly set out under section 7418 of this title.

EXECUTIVE ORDER NO. 11507

Ex. Ord. No. 11507, Feb. 4, 1970, 35 F.R. 2573, which provided for prevention, control, and abatement of air pollution at Federal facilities, was superseded by Ex. Ord. No. 11752, Dec. 17, 1973, 38 F.R. 34793, formerly set out as a note under section 4331 of this title.

§ 7402. Cooperative activities

(a) Interstate cooperation; uniform State laws; State compacts

The Administrator shall encourage cooperative activities by the States and local governments for the prevention and control of air pollution; encourage the enactment of improved and, so far as practicable in the light of varying conditions and needs, uniform State and local laws relating to the prevention and control of air pollution; and encourage the making of agreements and compacts between States for the prevention and control of air pollution.

(b) Federal cooperation

The Administrator shall cooperate with and encourage cooperative activities by all Federal departments and agencies having functions relating to the prevention and control of air pollution, so as to assure the utilization in the Federal air pollution control program of all appropriate and available facilities and resources within the Federal Government.

(c) Consent of Congress to compacts

The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of air pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements or compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by Congress. It is the intent of Congress that no agreement or compact entered into between States after November 21, 1967, which relates to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included (in whole or in part) in such air quality control region.

(July 14, 1955, ch. 360, title I, § 102, formerly § 2, as added Pub. L. 88–206, § 1, Dec. 17, 1963, 77 Stat. 393; renumbered § 102, Pub. L. 89–272, title I, § 101(3), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 485; Pub. L. 91–604, § 15(c)(2), Dec. 31, 1970, 84 Stat. 1713.)

CODIFICATION

Section was formerly classified to section 1857a of this title.

PRIOR PROVISIONS

Provisions similar to those in the first clause of subsec. (a) of this section were contained in subsec. (b)(1) of a prior section 1857a, of this title, act July 14, 1955, ch. 360, § 2, 69 Stat. 322, prior to the general amendment of this chapter by Pub. L. 88–206.

AMENDMENTS

1970—Subsecs. (a), (b). Pub. L. 91–604 substituted ''Administrator'' for ''Secretary'' wherever appearing.

1967—Subsec. (c). Pub. L. 90–148 inserted declaration that it is the intent of Congress that no agreement or compact entered into between States after the date of enactment of the Air Quality Act of 1967, which for purposes of codification was changed to November 21, 1967, the date of approval of such Act, relating to the control and abatement of air pollution in an air quality control region, shall provide for participation by a State which is not included (in whole or in part) in such air quality control region.

§ 7403. Research, investigation, training, and other activities

(a) Research and development program for prevention and control of air pollution

The Administrator shall establish a national research and development program for the prevention and control of air pollution and as part of such program shall—

(1) conduct, and promote the coordination and acceleration of, research, investigations, experiments, demonstrations, surveys, and studies relating to the causes, effects (including health and welfare effects), extent, prevention, and control of air pollution;

(2) encourage, cooperate with, and render technical services and provide financial assistance to air pollution control agencies and other appropriate public or private agencies, institutions, and organizations, and individuals in the conduct of such activities;

(3) conduct investigations and research and make surveys concerning any specific problem of air pollution in cooperation with any air pollution control agency with a view to recommending a solution of such problem, if he is requested to do so by such agency or if, in his judgment, such problem may affect any community or communities in a State other than that in which the source of the matter causing or contributing to the pollution is located;

(4) establish technical advisory committees composed of recognized experts in various aspects of air pollution to assist in the examination and evaluation of research progress and proposals and to avoid duplication of research; and

(5) conduct and promote coordination and acceleration of training for individuals relating to the causes, effects, extent, prevention, and control of air pollution.

(b) Authorized activities of Administrator in establishing research and development program

In carrying out the provisions of the preceding subsection the Administrator is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities;

(2) cooperate with other Federal departments and agencies, with air pollution control agencies, with other public and private agencies, institutions, and organizations, and with any industries involved, in the preparation and conduct of such research and other activities;

(3) make grants to air pollution control agencies, to other public or nonprofit private agencies, institutions, and organizations, and to individuals, for purposes stated in subsection (a)(1) of this section;

(4) contract with public or private agencies, institutions, and organizations, and with indi-

viduals, without regard to section 3324(a) and (b) of title 31 and section 6101 of title 41;

(5) establish and maintain research fellowships, in the Environmental Protection Agency and at public or nonprofit private educational institutions or research organizations;

(6) collect and disseminate, in cooperation with other Federal departments and agencies, and with other public or private agencies, institutions, and organizations having related responsibilities, basic data on chemical, physical, and biological effects of varying air quality and other information pertaining to air pollution and the prevention and control thereof;

(7) develop effective and practical processes, methods, and prototype devices for the prevention or control of air pollution; and

(8) construct facilities, provide equipment, and employ staff as necessary to carry out this chapter.

In carrying out the provisions of subsection (a), the Administrator shall provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications and make grants to such agencies, to other public or nonprofit private agencies, institutions, and organizations for the purposes stated in subsection (a)(5). Reasonable fees may be charged for such training provided to persons other than personnel of air pollution control agencies but such training shall be provided to such personnel of air pollution control agencies without charge.

(c) Air pollutant monitoring, analysis, modeling, and inventory research

In carrying out subsection (a), the Administrator shall conduct a program of research, testing, and development of methods for sampling, measurement, monitoring, analysis, and modeling of air pollutants. Such program shall include the following elements:

(1) Consideration of individual, as well as complex mixtures of, air pollutants and their chemical transformations in the atmosphere.

(2) Establishment of a national network to monitor, collect, and compile data with quantification of certainty in the status and trends of air emissions, deposition, air quality, surface water quality, forest condition, and visibility impairment, and to ensure the comparability of air quality data collected in different States and obtained from different nations.

(3) Development of improved methods and technologies for sampling, measurement, monitoring, analysis, and modeling to increase understanding of the sources of ozone percursors,[1] ozone formation, ozone transport, regional influences on urban ozone, regional ozone trends, and interactions of ozone with other pollutants. Emphasis shall be placed on those techniques which—

(A) improve the ability to inventory emissions of volatile organic compounds and nitrogen oxides that contribute to urban air pollution, including anthropogenic and natural sources;

(B) improve the understanding of the mechanism through which anthropogenic and biogenic volatile organic compounds react to form ozone and other oxidants; and

(C) improve the ability to identify and evaluate region-specific prevention and control options for ozone pollution.

(4) Submission of periodic reports to the Congress, not less than once every 5 years, which evaluate and assess the effectiveness of air pollution control regulations and programs using monitoring and modeling data obtained pursuant to this subsection.

(d) Environmental health effects research

(1) The Administrator, in consultation with the Secretary of Health and Human Services, shall conduct a research program on the short-term and long-term effects of air pollutants, including wood smoke, on human health. In conducting such research program the Administrator—

(A) shall conduct studies, including epidemiological, clinical, and laboratory and field studies, as necessary to identify and evaluate exposure to and effects of air pollutants on human health;

(B) may utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories and research centers; and

(C) shall consult with other Federal agencies to ensure that similar research being conducted in other agencies is coordinated to avoid duplication.

(2) In conducting the research program under this subsection, the Administrator shall develop methods and techniques necessary to identify and assess the risks to human health from both routine and accidental exposures to individual air pollutants and combinations thereof. Such research program shall include the following elements:

(A) The creation of an Interagency Task Force to coordinate such program. The Task Force shall include representatives of the National Institute for Environmental Health Sciences, the Environmental Protection Agency, the Agency for Toxic Substances and Disease Registry, the National Toxicology Program, the National Institute of Standards and Technology, the National Science Foundation, the Surgeon General, and the Department of Energy. This Interagency Task Force shall be chaired by a representative of the Environmental Protection Agency and shall convene its first meeting within 60 days after November 15, 1990.

(B) An evaluation, within 12 months after November 15, 1990, of each of the hazardous air pollutants listed under section 7412(b) of this title, to decide, on the basis of available information, their relative priority for preparation of environmental health assessments pursuant to subparagraph (C). The evaluation shall be based on reasonably anticipated toxicity to humans and exposure factors such as frequency of occurrence as an air pollutant and volume of emissions in populated areas. Such evaluation shall be reviewed by the Interagency Task Force established pursuant to subparagraph (A).

[1] So in original. Probably should be ''precursors,''.

(C) Preparation of environmental health assessments for each of the hazardous air pollutants referred to in subparagraph (B), beginning 6 months after the first meeting of the Interagency Task Force and to be completed within 96 months thereafter. No fewer than 24 assessments shall be completed and published annually. The assessments shall be prepared in accordance with guidelines developed by the Administrator in consultation with the Interagency Task Force and the Science Advisory Board of the Environmental Protection Agency. Each such assessment shall include—

(i) an examination, summary, and evaluation of available toxicological and epidemiological information for the pollutant to ascertain the levels of human exposure which pose a significant threat to human health and the associated acute, subacute, and chronic adverse health effects;

(ii) a determination of gaps in available information related to human health effects and exposure levels; and

(iii) where appropriate, an identification of additional activities, including toxicological and inhalation testing, needed to identify the types or levels of exposure which may present significant risk of adverse health effects in humans.

(e) Ecosystem research

In carrying out subsection (a), the Administrator, in cooperation, where appropriate, with the Under Secretary of Commerce for Oceans and Atmosphere, the Director of the Fish and Wildlife Service, and the Secretary of Agriculture, shall conduct a research program to improve understanding of the short-term and long-term causes, effects, and trends of ecosystems damage from air pollutants on ecosystems. Such program shall include the following elements:

(1) Identification of regionally representative and critical ecosystems for research.

(2) Evaluation of risks to ecosystems exposed to air pollutants, including characterization of the causes and effects of chronic and episodic exposures to air pollutants and determination of the reversibility of those effects.

(3) Development of improved atmospheric dispersion models and monitoring systems and networks for evaluating and quantifying exposure to and effects of multiple environmental stresses associated with air pollution.

(4) Evaluation of the effects of air pollution on water quality, including assessments of the short-term and long-term ecological effects of acid deposition and other atmospherically derived pollutants on surface water (including wetlands and estuaries) and groundwater.

(5) Evaluation of the effects of air pollution on forests, materials, crops, biological diversity, soils, and other terrestrial and aquatic systems exposed to air pollutants.

(6) Estimation of the associated economic costs of ecological damage which have occurred as a result of exposure to air pollutants.

Consistent with the purpose of this program, the Administrator may use the estuarine research reserves established pursuant to section 1461 of title 16 to carry out this research.

(f) Liquefied Gaseous Fuels Spill Test Facility

(1) The Administrator, in consultation with the Secretary of Energy and the Federal Coordinating Council for Science, Engineering, and Technology, shall oversee an experimental and analytical research effort, with the experimental research to be carried out at the Liquefied Gaseous Fuels Spill Test Facility. In consultation with the Secretary of Energy, the Administrator shall develop a list of chemicals and a schedule for field testing at the Facility. Analysis of a minimum of 10 chemicals per year shall be carried out, with the selection of a minimum of 2 chemicals for field testing each year. Highest priority shall be given to those chemicals that would present the greatest potential risk to human health as a result of an accidental release—

(A) from a fixed site; or

(B) related to the transport of such chemicals.

(2) The purpose of such research shall be to—

(A) develop improved predictive models for atmospheric dispersion which at a minimum—

(i) describe dense gas releases in complex terrain including man-made structures or obstacles with variable winds;

(ii) improve understanding of the effects of turbulence on dispersion patterns; and

(iii) consider realistic behavior of aerosols by including physicochemical reactions with water vapor, ground deposition, and removal by water spray;

(B) evaluate existing and future atmospheric dispersion models by—

(i) the development of a rigorous, standardized methodology for dense gas models; and

(ii) the application of such methodology to current dense gas dispersion models using data generated from field experiments; and

(C) evaluate the effectiveness of hazard mitigation and emergency response technology for fixed site and transportation related accidental releases of toxic chemicals.

Models pertaining to accidental release shall be evaluated and improved periodically for their utility in planning and implementing evacuation procedures and other mitigative strategies designed to minimize human exposure to hazardous air pollutants released accidentally.

(3) The Secretary of Energy shall make available to interested persons (including other Federal agencies and businesses) the use of the Liquefied Gaseous Fuels Spill Test Facility to conduct research and other activities in connection with the activities described in this subsection.

(g) Pollution prevention and emissions control

In carrying out subsection (a), the Administrator shall conduct a basic engineering research and technology program to develop, evaluate, and demonstrate nonregulatory strategies and technologies for air pollution prevention. Such strategies and technologies shall be developed with priority on those pollutants which pose a significant risk to human health and the environment, and with opportunities for participation by industry, public interest

groups, scientists, and other interested persons in the development of such strategies and technologies. Such program shall include the following elements:

(1) Improvements in nonregulatory strategies and technologies for preventing or reducing multiple air pollutants, including sulfur oxides, nitrogen oxides, heavy metals, PM–10 (particulate matter), carbon monoxide, and carbon dioxide, from stationary sources, including fossil fuel power plants. Such strategies and technologies shall include improvements in the relative cost effectiveness and long-range implications of various air pollutant reduction and nonregulatory control strategies such as energy conservation, including end-use efficiency, and fuel-switching to cleaner fuels. Such strategies and technologies shall be considered for existing and new facilities.

(2) Improvements in nonregulatory strategies and technologies for reducing air emissions from area sources.

(3) Improvements in nonregulatory strategies and technologies for preventing, detecting, and correcting accidental releases of hazardous air pollutants.

(4) Improvements in nonregulatory strategies and technologies that dispose of tires in ways that avoid adverse air quality impacts.

Nothing in this subsection shall be construed to authorize the imposition on any person of air pollution control requirements. The Administrator shall consult with other appropriate Federal agencies to ensure coordination and to avoid duplication of activities authorized under this subsection.

(h) NIEHS studies

(1) The Director of the National Institute of Environmental Health Sciences may conduct a program of basic research to identify, characterize, and quantify risks to human health from air pollutants. Such research shall be conducted primarily through a combination of university and medical school-based grants, as well as through intramural studies and contracts.

(2) The Director of the National Institute of Environmental Health Sciences shall conduct a program for the education and training of physicians in environmental health.

(3) The Director shall assure that such programs shall not conflict with research undertaken by the Administrator.

(4) There are authorized to be appropriated to the National Institute of Environmental Health Sciences such sums as may be necessary to carry out the purposes of this subsection.

(i) Coordination of research

The Administrator shall develop and implement a plan for identifying areas in which activities authorized under this section can be carried out in conjunction with other Federal ecological and air pollution research efforts. The plan, which shall be submitted to Congress within 6 months after November 15, 1990, shall include—

(1) an assessment of ambient monitoring stations and networks to determine cost effective ways to expand monitoring capabilities in both urban and rural environments;

(2) a consideration of the extent of the feasibility and scientific value of conducting the research program under subsection (e) to include consideration of the effects of atmospheric processes and air pollution effects; and

(3) a methodology for evaluating and ranking pollution prevention technologies, such as those developed under subsection (g), in terms of their ability to reduce cost effectively the emissions of air pollutants and other airborne chemicals of concern.

Not later than 2 years after November 15, 1990, and every 4 years thereafter, the Administrator shall report to Congress on the progress made in implementing the plan developed under this subsection, and shall include in such report any revisions of the plan.

(j) Continuation of national acid precipitation assessment program

(1) The acid precipitation research program set forth in the Acid Precipitation Act of 1980 [42 U.S.C. 8901 et seq.] shall be continued with modifications pursuant to this subsection.

(2) The Acid Precipitation Task Force shall consist of the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Secretary of the Interior, the Secretary of Agriculture, the Administrator of the National Oceanic and Atmospheric Administration, the Administrator of the National Aeronautics and Space Administration, and such additional members as the President may select. The President shall appoint a chairman for the Task Force from among its members within 30 days after November 15, 1990.

(3) The responsibilities of the Task Force shall include the following:

(A) Review of the status of research activities conducted to date under the comprehensive research plan developed pursuant to the Acid Precipitation Act of 1980 [42 U.S.C. 8901 et seq.], and development of a revised plan that identifies significant research gaps and establishes a coordinated program to address current and future research priorities. A draft of the revised plan shall be submitted by the Task Force to Congress within 6 months after November 15, 1990. The plan shall be available for public comment during the 60 day period after its submission, and a final plan shall be submitted by the President to the Congress within 45 days after the close of the comment period.

(B) Coordination with participating Federal agencies, augmenting the agencies' research and monitoring efforts and sponsoring additional research in the scientific community as necessary to ensure the availability and quality of data and methodologies needed to evaluate the status and effectiveness of the acid deposition control program. Such research and monitoring efforts shall include, but not be limited to—

(i) continuous monitoring of emissions of precursors of acid deposition;

(ii) maintenance, upgrading, and application of models, such as the Regional Acid Deposition Model, that describe the interactions of emissions with the atmosphere, and models that describe the response of ecosystems to acid deposition; and

(iii) analysis of the costs, benefits, and effectiveness of the acid deposition control program.

(C) Publication and maintenance of a National Acid Lakes Registry that tracks the condition and change over time of a statistically representative sample of lakes in regions that are known to be sensitive to surface water acidification.

(D) Submission every two years of a unified budget recommendation to the President for activities of the Federal Government in connection with the research program described in this subsection.

(E) Beginning in 1992 and biennially thereafter, submission of a report to Congress describing the results of its investigations and analyses. The reporting of technical information about acid deposition shall be provided in a format that facilitates communication with policymakers and the public. The report shall include—

(i) actual and projected emissions and acid deposition trends;

(ii) average ambient concentrations of acid deposition percursors[2] and their transformation products;

(iii) the status of ecosystems (including forests and surface waters), materials, and visibility affected by acid deposition;

(iv) the causes and effects of such deposition, including changes in surface water quality and forest and soil conditions;

(v) the occurrence and effects of episodic acidification, particularly with respect to high elevation watersheds; and

(vi) the confidence level associated with each conclusion to aid policymakers in use of the information.

(F) Beginning in 1996, and every 4 years thereafter, the report under subparagraph (E) shall include—

(i) the reduction in deposition rates that must be achieved in order to prevent adverse ecological effects; and

(ii) the costs and benefits of the acid deposition control program created by subchapter IV–A of this chapter.

(k) Air pollution conferences

If, in the judgment of the Administrator, an air pollution problem of substantial significance may result from discharge or discharges into the atmosphere, the Administrator may call a conference concerning this potential air pollution problem to be held in or near one or more of the places where such discharge or discharges are occurring or will occur. All interested persons shall be given an opportunity to be heard at such conference, either orally or in writing, and shall be permitted to appear in person or by representative in accordance with procedures prescribed by the Administrator. If the Administrator finds, on the basis of the evidence presented at such conference, that the discharge or discharges if permitted to take place or continue are likely to cause or contribute to air pollution subject to abatement under this part, the Administrator shall send such findings, together with recommendations concerning the measures which the Administrator finds reasonable and suitable to prevent such pollution, to the person or persons whose actions will result in the discharge or discharges involved; to air pollution agencies of the State or States and of the municipality or municipalities where such discharge or discharges will originate; and to the interstate air pollution control agency, if any, in the jurisdictional area of which any such municipality is located. Such findings and recommendations shall be advisory only, but shall be admitted together with the record of the conference, as part of the proceedings under subsections (b), (c), (d), (e), and (f) of section 7408 of this title.

(July 14, 1955, ch. 360, title I, §103, formerly §3, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 394; renumbered §103 and amended Pub. L. 89–272, title I, §§101(3), 103, Oct. 20, 1965, 79 Stat. 992, 996; Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 486; Pub. L. 91–604, §§2(a), 4(2), 15(a)(2), (c)(2), Dec. 31, 1970, 84 Stat. 1676, 1689, 1710, 1713; Pub. L. 95–95, title I, §101(a), (b), Aug. 7, 1977, 91 Stat. 686, 687; Pub. L. 101–549, title IX, §901(a)–(c), Nov. 15, 1990, 104 Stat. 2700–2703.)

REFERENCES IN TEXT

The Acid Precipitation Act of 1980, referred to in subsec. (j)(1), (3)(A), is title VII of Pub. L. 96–294, June 30, 1980, 94 Stat. 770, which is classified generally to chapter 97 (§8901 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 8901 of this title and Tables.

CODIFICATION

In subsec. (b)(4), ''section 3324(a) and (b) of title 31 and section 6101 of title 41'' substituted for ''sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5)'' on authority of Pub. L. 97–258, §4(b), Sept. 13, 1982, 96 Stat. 1067, which Act enacted Title 31, Money and Finance, and Pub. L. 111–350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

Section was formerly classified to section 1857b of this title.

PRIOR PROVISIONS

Provisions similar to those in subsec. (a)(3) of this section were contained in subsec. (a) of a prior section 1857b of this title, act July 14, 1955, ch. 360, §3, 69 Stat. 322, as amended Oct. 9, 1962, Pub. L. 87–761, §2, 76 Stat. 760, prior to the general amendment of this chapter by Pub. L. 88–206.

Provisions similar to those in this section were contained in prior sections 1857a to 1857d of this title, act July 14, 1955, ch. 360, §§2 to 5, 69 Stat. 322 (section 1857b as amended Oct. 9, 1962, Pub. L. 87–761, §2, 76 Stat. 760; section 1857d as amended Sept. 22, 1959, Pub. L. 86–365, §1, 73 Stat. 646 and Oct. 9, 1962, Pub. L. 87–761, §1, 76 Stat. 760), prior to the general amendment of this chapter by Pub. L. 88–206.

AMENDMENTS

1990—Subsec. (a)(1). Pub. L. 101–549, §901(a)(1), inserted ''(including health and welfare effects)'' after ''effects''.

Subsec. (b)(8). Pub. L. 101–549, §901(a)(2), which directed amendment of subsec. (b) by adding par. (8) at end, was executed by adding par. (8) after par. (7) to reflect the probable intent of Congress.

Subsecs. (c) to (f). Pub. L. 101–549, §901(b), amended subsecs. (c) to (f) generally, substituting present provisions for provisions which related to: in subsec. (c), re-

[2] So in original. Probably should be ''precursors''.

sults of other scientific studies; in subsec. (d), construction of facilities; in subsec. (e), potential air pollution problems, conferences, and findings and recommendations of the Administrator; and, in subsec. (f), accelerated research programs.

Subsecs. (g) to (k). Pub. L. 101–549, § 901(c), added subsecs. (g) to (k).

1977—Subsec. (a). Pub. L. 95–95, § 101(b), struck out reference to ''training'' in par. (1) and added par. (5).

Subsec. (b). Pub. L. 95–95, § 101(a), struck out par. (5) which provided for training and training grants to personnel of air pollution control agencies and other persons with suitable qualifications, redesignated pars. (6), (7), and (8) as (5), (6), and (7), respectively, and, following par. (7) as so redesignated, inserted provisions directing the Administrator, in carrying out subsec. (a), to provide training for, and make training grants to, personnel of air pollution control agencies and other persons with suitable qualifications and to make grants to such agencies, to other public or nonprofit private agencies, institutions, and organizations for the purposes stated in subsec. (a)(5) and allowing reasonable fees to be charged for such training provided to persons other than personnel of air pollution control agencies but requiring that such training be provided to such personnel of air pollution control agencies without charge.

1970—Subsec. (a). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary''.

Subsec. (b). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary'' and ''Environmental Protection Agency'' for ''Department of Health, Education, and Welfare''.

Subsec. (c). Pub. L. 91–604, § 15(a)(2), (c)(2), substituted ''Administrator'' for ''Secretary'' and ''air pollutants'' for ''air pollution agents (or combinations of agents)''.

Subsec. (d). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary''.

Subsec. (e). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing, substituted ''7415'' for ''7415(a)'', and inserted references to subsecs. (b) and (c) of section 7415 of this title.

Subsec. (f). Pub. L. 91–604, § 2(a), added subsec. (f).

1967—Subsec. (a). Pub. L. 90–148 substituted ''establish technical advisory committees composed of recognized experts in various aspects of air pollution to assist in the examination and evaluation of research progress and proposals and to avoid duplication of research'' for ''initiate and conduct a program of research directed toward the development of improved, low-cost techniques for extracting sulfur from fuels'' as cl. (4) and struck out cl. (5) which related to research programs relating to the control of hydrocarbon emissions from evaporation of gasoline and nitrogen and aldehyde oxide emission from gasoline and diesel powered vehicles and relating to the development of improved low-cost techniques to reduce emissions of oxides of sulfur produced by the combustion of sulfur-containing fuels.

Subsec. (c). Pub. L. 90–148 struck out provision for promulgation of criteria in the case of particular air pollution agents present in the air in certain quantities reflecting the latest scientific knowledge and allowing for availability and revision and provided for recommendation by Secretary of air quality criteria.

Subsec. (e). Pub. L. 90–148 substituted references to subsections (d), (e), and (f) of section 7415 of this title for references to subsections (c), (d), and (e) of section 7415 of this title in provision for admission of advisory findings and recommendations together with the record of the conference and made such findings and recommendations part of the proceedings of the conference, not merely part of the record of proceedings.

1965—Subsec. (a)(5). Pub. L. 89–272, § 103(3), added par. (5).

Subsecs. (d), (e). Pub. L. 89–272, § 103(4), added subsecs. (d) and (e).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective May 15, 2000, of provisions in subsec. (i) of this section requiring quadrennial reports to Congress and of reporting provisions in subsec. (j)(3)(E) and (F) of this section, see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 7th and 8th items on page 163 of House Document No. 103–7.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees in existence on Jan. 5, 1973, to terminate not later than the expiration of the 2-year period following Jan. 5, 1973, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

PILOT DESIGN PROGRAMS

Pub. L. 106–246, div. B, title II, § 2603, July 13, 2000, 114 Stat. 558, required the Administrator of the Environmental Protection Agency to make grants to carry out a 2-year program to implement in five metropolitan areas pilot design programs and report to Congress on the results not later than 360 days from first day of the second year of the 2-year program.

NATIONAL ACID LAKES REGISTRY

Pub. L. 101–549, title IV, § 405, Nov. 15, 1990, 104 Stat. 2632, provided that: ''The Administrator of the Environmental Protection Agency shall create a National Acid Lakes Registry that shall list, to the extent practical, all lakes that are known to be acidified due to acid deposition, and shall publish such list within one year of the enactment of this Act [Nov. 15, 1990]. Lakes shall be added to the registry as they become acidic or as data becomes available to show they are acidic. Lakes shall be deleted from the registry as they become nonacidic.''

ASSESSMENT OF INTERNATIONAL AIR POLLUTION CONTROL TECHNOLOGIES

Pub. L. 101–549, title IX, § 901(e), Nov. 15, 1990, 104 Stat. 2706, directed Administrator of Environmental Protection Agency to conduct a study that compares international air pollution control technologies of selected industrialized countries to determine if there exist air pollution control technologies in countries outside the United States that may have beneficial applications to this Nation's air pollution control efforts, including, with respect to each country studied, the topics of urban air quality, motor vehicle emissions, toxic air emissions, and acid deposition, and within 2 years after Nov. 15, 1990, submit to Congress a report detailing the results of such study.

WESTERN STATES ACID DEPOSITION RESEARCH

Pub. L. 101–549, title IX, §901(g), Nov. 15, 1990, 104 Stat. 2707, provided that:

''(1) The Administrator of the Environmental Protection Agency shall sponsor monitoring and research and submit to Congress annual and periodic assessment reports on—

''(A) the occurrence and effects of acid deposition on surface waters located in that part of the United States west of the Mississippi River;

''(B) the occurrence and effects of acid deposition on high elevation ecosystems (including forests, and surface waters); and

''(C) the occurrence and effects of episodic acidification, particularly with respect to high elevation watersheds.

''(2) The Administrator of the Environmental Protection Agency shall analyze data generated from the studies conducted under paragraph (1), data from the Western Lakes Survey, and other appropriate research and utilize predictive modeling techniques that take into account the unique geographic, climatological, and atmospheric conditions which exist in the western United States to determine the potential occurrence and effects of acid deposition due to any projected increases in the emission of sulfur dioxide and nitrogen oxides in that part of the United States located west of the Mississippi River. The Administrator shall include the results of the project conducted under this paragraph in the reports issued to Congress under paragraph (1).''

CONSULTATION WITH AND TRANSMISSION OF REPORTS AND STUDIES TO CONGRESSIONAL COMMITTEE

Pub. L. 95–95, title I, §101(c), Aug. 7, 1977, 91 Stat. 687, provided that: ''The Administrator of the Environmental Protection Agency shall consult with the House Committee on Science and Technology [now Committee on Science, Space, and Technology] on the environmental and atmospheric research, development, and demonstration aspects of this Act [see Short Title of 1977 Amendment note set out under section 7401 of this title]. In addition, the reports and studies required by this Act that relate to research, development, and demonstration issues shall be transmitted to the Committee on Science and Technology [now Committee on Science, Space, and Technology] at the same time they are made available to other committees of the Congress.''

STUDY OF SUBSTANCES DISCHARGED FROM EXHAUSTS OF MOTOR VEHICLES

Pub. L. 86–493, June 8, 1960, 74 Stat. 162, directed Surgeon General of Public Health Service to conduct a thorough study for purposes of determining, with respect to the various substances discharged from exhausts of motor vehicles, the amounts and kinds of such substances which, from the standpoint of human health, it is safe for motor vehicles to discharge into the atmosphere under the various conditions under which such vehicles may operate, and, not later than two years after June 8, 1960, submit to Congress a report on results of the study, together with such recommendations, if any, based upon the findings made in such study, as he deemed necessary for the protection of the public health.

§ 7404. Research relating to fuels and vehicles

(a) Research programs; grants; contracts; pilot and demonstration plants; byproducts research

The Administrator shall give special emphasis to research and development into new and improved methods, having industry-wide application, for the prevention and control of air pollution resulting from the combustion of fuels. In furtherance of such research and development he shall—

(1) conduct and accelerate research programs directed toward development of improved, cost-effective techniques for—

(A) control of combustion byproducts of fuels,

(B) removal of potential air pollutants from fuels prior to combustion,

(C) control of emissions from the evaporation of fuels,

(D) improving the efficiency of fuels combustion so as to decrease atmospheric emissions, and

(E) producing synthetic or new fuels which, when used, result in decreased atmospheric emissions.[1]

(2) provide for Federal grants to public or nonprofit agencies, institutions, and organizations and to individuals, and contracts with public or private agencies, institutions, or persons, for payment of (A) part of the cost of acquiring, constructing, or otherwise securing for research and development purposes, new or improved devices or methods having industry-wide application of preventing or controlling discharges into the air of various types of pollutants; (B) part of the cost of programs to develop low emission alternatives to the present internal combustion engine; (C) the cost to purchase vehicles and vehicle engines, or portions thereof, for research, development, and testing purposes; and (D) carrying out the other provisions of this section, without regard to section 3324(a) and (b) of title 31 and section 6101 of title 41: *Provided*, That research or demonstration contracts awarded pursuant to this subsection (including contracts for construction) may be made in accordance with, and subject to the limitations provided with respect to research contracts of the military departments in, section 2353 of title 10, except that the determination, approval, and certification required thereby shall be made by the Administrator; *Provided further*, That no grant may be made under this paragraph in excess of $1,500,000;

(3) determine, by laboratory and pilot plant testing, the results of air pollution research and studies in order to develop new or improved processes and plant designs to the point where they can be demonstrated on a large and practical scale;

(4) construct, operate, and maintain, or assist in meeting the cost of the construction, operation, and maintenance of new or improved demonstration plants or processes which have promise of accomplishing the purposes of this chapter;[2]

(5) study new or improved methods for the recovery and marketing of commercially valuable byproducts resulting from the removal of pollutants.

(b) Powers of Administrator in establishing research and development programs

In carrying out the provisions of this section, the Administrator may—

(1) conduct and accelerate research and development of cost-effective instrumentation

[1] So in original. The period probably should be a semicolon.

[2] So in original. The word ''and'' probably should appear.

techniques to facilitate determination of quantity and quality of air pollutant emissions, including, but not limited to, automotive emissions;

(2) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories;

(3) establish and operate necessary facilities and test sites at which to carry on the research, testing, development, and programming necessary to effectuate the purposes of this section;

(4) acquire secret processes, technical data, inventions, patent applications, patents, licenses, and an interest in lands, plants, and facilities, and other property or rights by purchase, license, lease, or donation; and

(5) cause on-site inspections to be made of promising domestic and foreign projects, and cooperate and participate in their development in instances in which the purposes of the chapter will be served thereby.

(c) Clean alternative fuels

The Administrator shall conduct a research program to identify, characterize, and predict air emissions related to the production, distribution, storage, and use of clean alternative fuels to determine the risks and benefits to human health and the environment relative to those from using conventional gasoline and diesel fuels. The Administrator shall consult with other Federal agencies to ensure coordination and to avoid duplication of activities authorized under this subsection.

(July 14, 1955, ch. 360, title I, §104, as added Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 487; amended Pub. L. 91–137, Dec. 5, 1969, 83 Stat. 283; Pub. L. 91–604, §§2(b), (c), 13(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1676, 1677, 1709, 1713; Pub. L. 93–15, §1(a), Apr. 9, 1973, 87 Stat. 11; Pub. L. 93–319, §13(a), June 22, 1974, 88 Stat. 265; Pub. L. 101–549, title IX, §901(d), Nov. 15, 1990, 104 Stat. 2706.)

CODIFICATION

In subsec. (a)(2)(D), ''section 3324(a) and (b) of title 31 and section 6101 of title 41'' substituted for ''sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5)'' on authority of Pub. L. 97–258, §4(b), Sept. 13, 1982, 96 Stat. 1067, which Act enacted Title 31, Money and Finance, and Pub. L. 111–350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

Section was formerly classified to section 1857b–1 of this title.

PRIOR PROVISIONS

A prior section 104 of act July 14, 1955, was renumbered section 105 by Pub. L. 90–148 and is classified to section 7405 of this title.

AMENDMENTS

1990—Subsecs. (a)(1), (b)(1). Pub. L. 101–549, §901(d)(1), substituted ''cost-effective'' for ''low-cost''.

Subsec. (c). Pub. L. 101–549, §901(d)(2), amended subsec. (c) generally. Prior to amendment, subsec. (c) read as follows: ''For the purposes of this section there are authorized to be appropriated $75,000,000 for the fiscal year ending June 30, 1971, $125,000,000 for the fiscal year ending June 30, 1972, $150,000,000 for the fiscal year ending June 30, 1973, and $150,000,000 for the fiscal year ending June 30, 1974, and $150,000,000 for the fiscal year ending June 30, 1975. Amounts appropriated pursuant to this subsection shall remain available until expended.''

1974—Subsec. (c). Pub. L. 93–319 authorized appropriation of $150,000,000 for fiscal year ending June 30, 1975.

1973—Subsec. (c). Pub. L. 93–15 authorized appropriation of $150,000,000 for fiscal year ending June 30, 1974.

1970—Subsec. (a). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary''.

Subsec. (a)(1). Pub. L. 91–604, §2(b), inserted provisions authorizing research programs directed toward development of techniques for improving the efficiency of fuels combustion so as to decrease atmospheric emissions, and producing synthetic or new fuels which result in decreased atmospheric emissions.

Subsec. (a)(2). Pub. L. 91–604, §2(c), added cls. (B) and (C) and redesignated former cl. (B) as (D).

Subsec. (b). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary''.

Subsec. (c). Pub. L. 91–604, §13(a), substituted provisions authorizing appropriations for fiscal years ending June 30, 1971, 1972, and 1973, for provisions authorizing appropriations for fiscal years ending June 30, 1968 and 1969.

1969—Subsec. (c). Pub. L. 91–137 authorized appropriation of $45,000,000 for fiscal year ending June 30, 1970.

HYDROGEN FUEL CELL VEHICLE STUDY AND TEST PROGRAM

Pub. L. 101–549, title VIII, §807, Nov. 15, 1990, 104 Stat. 2689, provided that: ''The Administrator of the Environmental Protection Agency, in conjunction with the National Aeronautics and Space Administration and the Department of Energy, shall conduct a study and test program on the development of a hydrogen fuel cell electric vehicle. The study and test program shall determine how best to transfer existing NASA hydrogen fuel cell technology into the form of a mass-producible, cost effective hydrogen fuel cell vehicle. Such study and test program shall include at a minimum a feasibility-design study, the construction of a prototype, and a demonstration. This study and test program should be completed and a report submitted to Congress within 3 years after the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990]. This study and test program should be performed in the university or universities which are best exhibiting the facilities and expertise to develop such a fuel cell vehicle.''

COMBUSTION OF CONTAMINATED USED OIL IN SHIPS

Pub. L. 101–549, title VIII, §813, Nov. 15, 1990, 104 Stat. 2693, provided that: ''Within 2 years after the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the Administrator of the Environmental Protection Agency shall complete a study and submit a report to Congress evaluating the health and environmental impacts of the combustion of contaminated used oil in ships, the reasons for using such oil for such purposes, the alternatives to such use, the costs of such alternatives, and other relevant factors and impacts. In preparing such study, the Administrator shall obtain the view and comments of all interested persons and shall consult with the Secretary of Transportation and the Secretary of the department in which the Coast Guard is operating.''

EXTENSION TO AUG. 31, 1970 OF AUTHORIZATION PERIOD FOR FISCAL YEAR 1970

Pub. L. 91–316, July 10, 1970, 84 Stat. 416, provided in part that the authorization contained in section 104(c) of the Clean Air Act [subsec. (c) of this section] for the fiscal year ending June 30, 1970, should remain available through Aug. 31, 1970, notwithstanding any provisions of this section.

§ 7405. Grants for support of air pollution planning and control programs

(a) Amounts; limitations; assurances of plan development capability

(1)(A) The Administrator may make grants to air pollution control agencies, within the mean-

ing of paragraph (1), (2), (3), (4), or (5) of section 7602 of this title, in an amount up to three-fifths of the cost of implementing programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards. For the purpose of this section, ''implementing'' means any activity related to the planning, developing, establishing, carrying-out, improving, or maintaining of such programs.

(B) Subject to subsections (b) and (c) of this section, an air pollution control agency which receives a grant under subparagraph (A) and which contributes less than the required two-fifths minimum shall have 3 years following November 15, 1990, in which to contribute such amount. If such an agency fails to meet and maintain this required level, the Administrator shall reduce the amount of the Federal contribution accordingly.

(C) With respect to any air quality control region or portion thereof for which there is an applicable implementation plan under section 7410 of this title, grants under subparagraph (A) may be made only to air pollution control agencies which have substantial responsibilities for carrying out such applicable implementation plan.

(2) Before approving any grant under this subsection to any air pollution control agency within the meaning of sections 7602(b)(2) and 7602(b)(4) of this title, the Administrator shall receive assurances that such agency provides for adequate representation of appropriate State, interstate, local, and (when appropriate) international, interests in the air quality control region.

(3) Before approving any planning grant under this subsection to any air pollution control agency within the meaning of sections 7602(b)(2) and 7602(b)(4) of this title, the Administrator shall receive assurances that such agency has the capability of developing a comprehensive air quality plan for the air quality control region, which plan shall include (when appropriate) a recommended system of alerts to avert and reduce the risk of situations in which there may be imminent and serious danger to the public health or welfare from air pollutants and the various aspects relevant to the establishment of air quality standards for such air quality control region, including the concentration of industries, other commercial establishments, population and naturally occurring factors which shall affect such standards.

(b) Terms and conditions; regulations; factors for consideration; State expenditure limitations

(1) From the sums available for the purposes of subsection (a) of this section for any fiscal year, the Administrator shall from time to time make grants to air pollution control agencies upon such terms and conditions as the Administrator may find necessary to carry out the purpose of this section. In establishing regulations for the granting of such funds the Administrator shall, so far as practicable, give due consideration to (A) the population, (B) the extent of the actual or potential air pollution problem, and (C) the financial need of the respective agencies.

(2) Not more than 10 per centum of the total of funds appropriated or allocated for the purposes of subsection (a) of this section shall be granted for air pollution control programs in any one State. In the case of a grant for a program in an area crossing State boundaries, the Administrator shall determine the portion of such grant that is chargeable to the percentage limitation under this subsection for each State into which such area extends. Subject to the provisions of paragraph (1) of this subsection, no State shall have made available to it for application less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.

(c) Maintenance of effort

(1) No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for recurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year. In order for the Administrator to award grants under this section in a timely manner each fiscal year, the Administrator shall compare an agency's prospective expenditure level to that of its second preceding fiscal year. The Administrator shall revise the current regulations which define applicable nonrecurrent and recurrent expenditures, and in so doing, give due consideration to exempting an agency from the limitations of this paragraph and subsection (a) due to periodic increases experienced by that agency from time to time in its annual expenditures for purposes acceptable to the Administrator for that fiscal year.

(2) The Administrator may still award a grant to an agency not meeting the requirements of paragraph (*l*)[1] of this subsection if the Administrator, after notice and opportunity for public hearing, determines that a reduction in expenditures is attributable to a non-selective reduction in the expenditures in the programs of all Executive branch agencies of the applicable unit of Government. No agency shall receive any grant under this section with respect to the maintenance of a program for the prevention and control of air pollution unless the Administrator is satisfied that such a grant will be so used to supplement and, to the extent practicable, increase the level of State, local, or other non-Federal funds. No grants shall be made under this section until the Administrator has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected.

(d) Reduction of payments; availability of reduced amounts; reduced amount as deemed paid to agency for purpose of determining amount of grant

The Administrator, with the concurrence of any recipient of a grant under this section, may reduce the payments to such recipient by the amount of the pay, allowances, traveling expenses, and any other costs in connection with the detail of any officer or employee to the recipient under section 7601 of this title, when such detail is for the convenience of, and at the request of, such recipient and for the purpose of carrying out the provisions of this chapter. The

[1] So in original. Probably should be paragraph ''(1)''.

amount by which such payments have been reduced shall be available for payment of such costs by the Administrator, but shall, for the purpose of determining the amount of any grant to a recipient under subsection (a) of this section, be deemed to have been paid to such agency.

(e) Notice and opportunity for hearing when affected by adverse action

No application by a State for a grant under this section may be disapproved by the Administrator without prior notice and opportunity for a public hearing in the affected State, and no commitment or obligation of any funds under any such grant may be revoked or reduced without prior notice and opportunity for a public hearing in the affected State (or in one of the affected States if more than one State is affected).

(July 14, 1955, ch. 360, title I, § 105, formerly § 4, as added Pub. L. 88–206, § 1, Dec. 17, 1963, 77 Stat. 395; renumbered § 104 and amended Pub. L. 89–272, title I, § 101(2)–(4), Oct. 20, 1965, 79 Stat. 992; Pub. L. 89–675, § 3, Oct. 15, 1966, 80 Stat. 954; renumbered § 105 and amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 489; Pub. L. 91–604, §§ 3(a), (b)(1), 15(c)(2), Dec. 31, 1970, 84 Stat. 1677, 1713; Pub. L. 95–95, title I, § 102, title III, § 305(b), Aug. 7, 1977, 91 Stat. 687, 776; Pub. L. 101–549, title VIII, § 802(a)–(e), Nov. 15, 1990, 104 Stat. 2687, 2688.)

CODIFICATION

Section was formerly classified to section 1857c of this title.

PRIOR PROVISIONS

A prior section 105 of act July 14, 1955, was renumbered section 108 by Pub. L. 90–148 and is classified to section 7415 of this title.

Provisions similar to those in subsecs. (a) and (b) of this section were contained in a prior section 1857d of this title, act July 14, 1955, ch. 360, § 5, 69 Stat. 322, as amended Sept. 22, 1959, Pub. L. 86–365, § 1, 73 Stat. 646; Oct. 9, 1962, Pub. L. 87–761, § 1, 76 Stat. 760, prior to the general amendment by Pub. L. 88–206.

AMENDMENTS

1990—Subsec. (a)(1)(A), (B). Pub. L. 101–549, § 802(a), amended subpars. (A) and (B) generally. Prior to amendment, subpars. (A) and (B) read as follows:

''(A) The Administrator may make grants to air pollution control agencies in an amount up to two-thirds of the cost of planning, developing, establishing, or improving, and up to one-half of the cost of maintaining, programs for the prevention and control of air pollution or implementation of national primary and secondry [sic] ambient air quality standards.

''(B) Subject to subparagraph (C), the Administrator may make grants to air pollution control agencies within the meaning of paragraph (1), (2), or (4) of section 7602(b) of this title in an amount up to three-fourths of the cost of planning, developing, establishing, or improving, and up to three-fifths of the cost of maintaining, any program for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards in an area that includes two or more municipalities, whether in the same or different States.''

Subsec. (a)(1)(C). Pub. L. 101–549, § 802(b), substituted ''subparagraph (A)'' for ''subparagraph (B)''.

Subsec. (b)(1). Pub. L. 101–549, § 802(c), designated existing provisions of subsec. (b) as par. (1), redesignated former cls. (1) to (3) as cls. (A) to (C), respectively, and struck out at end ''No agency shall receive any grant under this section during any fiscal year when its expenditures of non-Federal funds for other than non-recurrent expenditures for air pollution control programs will be less than its expenditures were for such programs during the preceding fiscal year, unless the Administrator, after notice and opportunity for public hearing, determines that a reduction in expenditures is attributable to a nonselective reduction in expenditures in the programs of all executive branch agencies of the applicable unit of Government; and no agency shall receive any grant under this section with respect to the maintenance of a program for the prevention and control of air pollution unless the Administrator is satisfied that such grant will be so used to supplement and, to the extent practicable, increase the level of State, local, or other non-Federal funds that would in the absence of such grant be made available for the maintenance of such program, and will in no event supplant such State, local, or other non-Federal funds. No grant shall be made under this section until the Administrator has consulted with the appropriate official as designated by the Governor or Governors of the State or States affected.''

Subsec. (b)(2). Pub. L. 101–549, § 802(d), redesignated subsec. (c) as subsec. (b)(2) and substituted ''Subject to the provisions of paragraph (1) of this subsection, no State shall have made available to it for application less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.'' for ''In fiscal year 1978 and subsequent fiscal years, subject to the provisions of subsection (b) of this section, no State shall receive less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.''

Subsec. (c). Pub. L. 101–549, § 802(e), added subsec. (c). Former subsec. (c) redesignated (b)(2).

1977—Subsec. (b). Pub. L. 95–95, § 102(a), inserted '', unless the Administrator, after notice and opportunity for hearing, determines that a reduction in expenditures is attributable to a nonselective reduction in expenditures in the programs of all executive branch agencies of the applicable unit of Government'' after ''will be less than its expenditures were for such programs during the preceding fiscal year''.

Subsec. (c). Pub. L. 95–95, § 102(b), provided that in fiscal year 1978 and subsequent fiscal years, subject to provisions of subsec. (b) of this section, no State shall receive less than one-half of 1 per centum of the annual appropriation for grants under this section for grants to agencies within such State.

Subsec. (e). Pub. L. 95–95, § 305(b), added subsec. (e).

1970—Subsec. (a)(1). Pub. L. 91–604, § 3(a), substituted provisions authorizing the Administrator to make grants, for provisions authorizing the Secretary to make grants, and provisions authorizing grants for programs implementing national primary and secondary ambient air quality standards, for provisions authorizing grants for programs implementing air quality standards authorized by this subchapter, and inserted the provision requiring grants to air pollution control agencies be made to agencies having substantial responsibilities for carrying out the applicable implementation plan with respect to the air quality control region or portion thereof.

Subsecs. (a)(2), (3), (b), (c). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (d). Pub. L. 91–604, § 3(b)(1), added subsec. (d).

1967—Subsec. (a). Pub. L. 90–148 designated existing provisions as par. (1), substituted ''regional air quality control program'' for ''regional air pollution control program,'' added planning to list of authorized activities, and added programs for implementation of air quality standards authorized by this chapter to list of authorized programs, and added pars. (2) and (3).

Subsec. (b). Pub. L. 90–148 made minor changes in the order of provisions.

Subsec. (c). Pub. L. 90–148 reduced percentage limitation on portion of total funds which might be granted

for air pollution control programs in any one State from 12½ per centum to 10 per centum.

1966—Subsec. (a). Pub. L. 89–675, §3(a)(1), struck out provisions limiting available funds to 20 per centum of sums appropriated annually for purpose of this subchapter, inserted provisions allowing grants to air pollution control agencies up to one-half of cost of maintaining programs for prevention and control of air pollution, and authorized Secretary to make grants of up to three-fifths of cost of maintaining regional air pollution control programs.

Subsec. (b). Pub. L. 89–675, §3(a)(2), substituted ''for the purpose of'' for ''under'', permitted grantees to reduce annual expenditures to the extent that nonrecurrent costs are involved for purposes of application of the provision that no agency may receive grants during any fiscal year when its expenditures of non-Federal funds for air pollution control programs are less than its expenditures for such programs during the preceding year, and inserted provisions insuring that Federal funds will in no event be used to supplant State or local government funds in maintaining air pollution control programs.

Subsec. (c). Pub. L. 89–675, §3(b), substituted ''total of funds appropriated or allocated for the purposes of subsection (a) of this section shall be granted for air pollution control programs'' for ''grant funds available under subsection (a) of this section shall be expended'' and authorized the Secretary to determine the portion of grants to interstate agencies to be charged against the twelve and one-half percent limitation of grant funds to any one State.

1965—Subsec. (a). Pub. L. 89–272 substituted ''this title'' for ''this Act'', which for purposes of codification has been changed to ''this subchapter'', and ''section 302(b)(2) and (4)'' for ''section 9(b)(2) and (4)'', which for purposes of codification has been changed to ''section 7602(b)(2) and (4) of this title''.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7406. Interstate air quality agencies; program cost limitations

For the purpose of developing implementation plans for any interstate air quality control region designated pursuant to section 7407 of this title or of implementing section 7506a of this title (relating to control of interstate air pollution) or section 7511c of this title (relating to control of interstate ozone pollution), the Administrator is authorized to pay, for two years, up to 100 per centum of the air quality planning program costs of any commission established under section 7506a of this title (relating to control of interstate air pollution) or section 7511c of this title (relating to control of interstate ozone pollution) or any agency designated by the Governors of the affected States, which agency shall be capable of recommending to the Governors plans for implementation of national primary and secondary ambient air quality standards and shall include representation from the States and appropriate political subdivisions within the air quality control region. After the initial two-year period the Administrator is authorized to make grants to such agency or such commission in an amount up to three-fifths of the air quality implementation program costs of such agency or commission.

(July 14, 1955, ch. 360, title I, §106, as added Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 490; amended Pub. L. 91–604, §3(c), Dec. 31, 1970, 84 Stat. 1677; Pub. L. 101–549, title I, §102(f)(2), title VIII, §802(f), Nov. 15, 1990, 104 Stat. 2420, 2688.)

CODIFICATION

Section was formerly classified to section 1857c–1 of this title.

PRIOR PROVISIONS

A prior section 106 of act July 14, 1955, was renumbered section 117 by Pub. L. 91–604 and is classified to section 7417 of this title.

AMENDMENTS

1990—Pub. L. 101–549, §102(f)(2)(A), inserted ''or of implementing section 7506a of this title (relating to control of interstate air pollution) or section 7511c of this title (relating to control of interstate ozone pollution)'' after ''section 7407 of this title''.

Pub. L. 101–549, §102(f)(2)(B), which directed insertion of ''any commission established under section 7506a of this title (relating to control of interstate air pollution) or section 7511c of this title (relating to control of interstate ozone pollution) or'' after ''program costs of'', was executed by making the insertion after that phrase the first place it appeared to reflect the probable intent of Congress.

Pub. L. 101–549, §102(f)(2)(C), which directed insertion of ''or such commission'' after ''such agency'' in last sentence, was executed by making insertion after ''such agency'' the first place it appeared in the last sentence to reflect the probable intent of Congress.

Pub. L. 101–549, §§102(f)(2)(D), 802(f), substituted ''three-fifths of the air quality implementation program costs of such agency or commission'' for ''three-fourths of the air quality planning program costs of such agency''.

1970—Pub. L. 91–604 struck out designation ''(a)'', substituted provisions authorizing Federal grants for the purpose of developing implementation plans and provisions requiring the designated State agency to be capable of recommending plans for implementation of national primary and secondary ambient air quality standards, for provisions authorizing Federal grants for the purpose of expediting the establishment of air quality standards and provisions requiring the designated State agency to be capable of recommending standards of air quality and plans for implementation thereof, respectively, and struck out subsec. (b) which authorized establishment of air quality planning commissions.

§ 7407. Air quality control regions

(a) Responsibility of each State for air quality; submission of implementation plan

Each State shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State by submitting an implementation plan for such State which will specify the manner in which national primary and secondary ambient air quality

standards will be achieved and maintained within each air quality control region in such State.

(b) Designated regions

For purposes of developing and carrying out implementation plans under section 7410 of this title—

(1) an air quality control region designated under this section before December 31, 1970, or a region designated after such date under subsection (c), shall be an air quality control region; and

(2) the portion of such State which is not part of any such designated region shall be an air quality control region, but such portion may be subdivided by the State into two or more air quality control regions with the approval of the Administrator.

(c) Authority of Administrator to designate regions; notification of Governors of affected States

The Administrator shall, within 90 days after December 31, 1970, after consultation with appropriate State and local authorities, designate as an air quality control region any interstate area or major intrastate area which he deems necessary or appropriate for the attainment and maintenance of ambient air quality standards. The Administrator shall immediately notify the Governors of the affected States of any designation made under this subsection.

(d) Designations

(1) Designations generally

(A) Submission by Governors of initial designations following promulgation of new or revised standards

By such date as the Administrator may reasonably require, but not later than 1 year after promulgation of a new or revised national ambient air quality standard for any pollutant under section 7409 of this title, the Governor of each State shall (and at any other time the Governor of a State deems appropriate the Governor may) submit to the Administrator a list of all areas (or portions thereof) in the State, designating as—

(i) nonattainment, any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant,

(ii) attainment, any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant, or

(iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

The Administrator may not require the Governor to submit the required list sooner than 120 days after promulgating a new or revised national ambient air quality standard.

(B) Promulgation by EPA of designations

(i) Upon promulgation or revision of a national ambient air quality standard, the Administrator shall promulgate the designations of all areas (or portions thereof) submitted under subparagraph (A) as expeditiously as practicable, but in no case later than 2 years from the date of promulgation of the new or revised national ambient air quality standard. Such period may be extended for up to one year in the event the Administrator has insufficient information to promulgate the designations.

(ii) In making the promulgations required under clause (i), the Administrator may make such modifications as the Administrator deems necessary to the designations of the areas (or portions thereof) submitted under subparagraph (A) (including to the boundaries of such areas or portions thereof). Whenever the Administrator intends to make a modification, the Administrator shall notify the State and provide such State with an opportunity to demonstrate why any proposed modification is inappropriate. The Administrator shall give such notification no later than 120 days before the date the Administrator promulgates the designation, including any modification thereto. If the Governor fails to submit the list in whole or in part, as required under subparagraph (A), the Administrator shall promulgate the designation that the Administrator deems appropriate for any area (or portion thereof) not designated by the State.

(iii) If the Governor of any State, on the Governor's own motion, under subparagraph (A), submits a list of areas (or portions thereof) in the State designated as nonattainment, attainment, or unclassifiable, the Administrator shall act on such designations in accordance with the procedures under paragraph (3) (relating to redesignation).

(iv) A designation for an area (or portion thereof) made pursuant to this subsection shall remain in effect until the area (or portion thereof) is redesignated pursuant to paragraph (3) or (4).

(C) Designations by operation of law

(i) Any area designated with respect to any air pollutant under the provisions of paragraph (1)(A), (B), or (C) of this subsection (as in effect immediately before November 15, 1990) is designated, by operation of law, as a nonattainment area for such pollutant within the meaning of subparagraph (A)(i).

(ii) Any area designated with respect to any air pollutant under the provisions of paragraph (1)(E) (as in effect immediately before November 15, 1990) is designated by operation of law, as an attainment area for such pollutant within the meaning of subparagraph (A)(ii).

(iii) Any area designated with respect to any air pollutant under the provisions of paragraph (1)(D) (as in effect immediately before November 15, 1990) is designated, by operation of law, as an unclassifiable area for such pollutant within the meaning of subparagraph (A)(iii).

(2) Publication of designations and redesignations

(A) The Administrator shall publish a notice in the Federal Register promulgating any designation under paragraph (1) or (5), or announcing any designation under paragraph (4), or promulgating any redesignation under paragraph (3).

(B) Promulgation or announcement of a designation under paragraph (1), (4) or (5) shall not be subject to the provisions of sections 553 through 557 of title 5 (relating to notice and comment), except nothing herein shall be construed as precluding such public notice and comment whenever possible.

(3) Redesignation

(A) Subject to the requirements of subparagraph (E), and on the basis of air quality data, planning and control considerations, or any other air quality-related considerations the Administrator deems appropriate, the Administrator may at any time notify the Governor of any State that available information indicates that the designation of any area or portion of an area within the State or interstate area should be revised. In issuing such notification, which shall be public, to the Governor, the Administrator shall provide such information as the Administrator may have available explaining the basis for the notice.

(B) No later than 120 days after receiving a notification under subparagraph (A), the Governor shall submit to the Administrator such redesignation, if any, of the appropriate area (or areas) or portion thereof within the State or interstate area, as the Governor considers appropriate.

(C) No later than 120 days after the date described in subparagraph (B) (or paragraph (1)(B)(iii)), the Administrator shall promulgate the redesignation, if any, of the area or portion thereof, submitted by the Governor in accordance with subparagraph (B), making such modifications as the Administrator may deem necessary, in the same manner and under the same procedure as is applicable under clause (ii) of paragraph (1)(B), except that the phrase ''60 days'' shall be substituted for the phrase ''120 days'' in that clause. If the Governor does not submit, in accordance with subparagraph (B), a redesignation for an area (or portion thereof) identified by the Administrator under subparagraph (A), the Administrator shall promulgate such redesignation, if any, that the Administrator deems appropriate.

(D) The Governor of any State may, on the Governor's own motion, submit to the Administrator a revised designation of any area or portion thereof within the State. Within 18 months of receipt of a complete State redesignation submittal, the Administrator shall approve or deny such redesignation. The submission of a redesignation by a Governor shall not affect the effectiveness or enforceability of the applicable implementation plan for the State.

(E) The Administrator may not promulgate a redesignation of a nonattainment area (or portion thereof) to attainment unless—

(i) the Administrator determines that the area has attained the national ambient air quality standard;

(ii) the Administrator has fully approved the applicable implementation plan for the area under section 7410(k) of this title;

(iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions;

(iv) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 7505a of this title; and

(v) the State containing such area has met all requirements applicable to the area under section 7410 of this title and part D.

(F) The Administrator shall not promulgate any redesignation of any area (or portion thereof) from nonattainment to unclassifiable.

(4) Nonattainment designations for ozone, carbon monoxide and particulate matter (PM–10)

(A) Ozone and carbon monoxide

(i) Within 120 days after November 15, 1990, each Governor of each State shall submit to the Administrator a list that designates, affirms or reaffirms the designation of, or redesignates (as the case may be), all areas (or portions thereof) of the Governor's State as attainment, nonattainment, or unclassifiable with respect to the national ambient air quality standards for ozone and carbon monoxide.

(ii) No later than 120 days after the date the Governor is required to submit the list of areas (or portions thereof) required under clause (i) of this subparagraph, the Administrator shall promulgate such designations, making such modifications as the Administrator may deem necessary, in the same manner, and under the same procedure, as is applicable under clause (ii) of paragraph (1)(B), except that the phrase ''60 days'' shall be substituted for the phrase ''120 days'' in that clause. If the Governor does not submit, in accordance with clause (i) of this subparagraph, a designation for an area (or portion thereof), the Administrator shall promulgate the designation that the Administrator deems appropriate.

(iii) No nonattainment area may be redesignated as an attainment area under this subparagraph.

(iv) Notwithstanding paragraph (1)(C)(ii) of this subsection, if an ozone or carbon monoxide nonattainment area located within a metropolitan statistical area or consolidated metropolitan statistical area (as established by the Bureau of the Census) is classified under part D of this subchapter as a Serious, Severe, or Extreme Area, the boundaries of such area are hereby revised (on the date 45 days after such classification) by operation of law to include the entire metropolitan statistical area or consolidated metropolitan

statistical area, as the case may be, unless within such 45-day period the Governor (in consultation with State and local air pollution control agencies) notifies the Administrator that additional time is necessary to evaluate the application of clause (v). Whenever a Governor has submitted such a notice to the Administrator, such boundary revision shall occur on the later of the date 8 months after such classification or 14 months after November 15, 1990, unless the Governor makes the finding referred to in clause (v), and the Administrator concurs in such finding, within such period. Except as otherwise provided in this paragraph, a boundary revision under this clause or clause (v) shall apply for purposes of any State implementation plan revision required to be submitted after November 15, 1990.

(v) Whenever the Governor of a State has submitted a notice under clause (iv), the Governor, in consultation with State and local air pollution control agencies, shall undertake a study to evaluate whether the entire metropolitan statistical area or consolidated metropolitan statistical area should be included within the nonattainment area. Whenever a Governor finds and demonstrates to the satisfaction of the Administrator, and the Administrator concurs in such finding, that with respect to a portion of a metropolitan statistical area or consolidated metropolitan statistical area, sources in the portion do not contribute significantly to violation of the national ambient air quality standard, the Administrator shall approve the Governor's request to exclude such portion from the nonattainment area. In making such finding, the Governor and the Administrator shall consider factors such as population density, traffic congestion, commercial development, industrial development, meteorological conditions, and pollution transport.

(B) PM–10 designations

By operation of law, until redesignation by the Administrator pursuant to paragraph (3)—

(i) each area identified in 52 Federal Register 29383 (Aug. 7, 1987) as a Group I area (except to the extent that such identification was modified by the Administrator before November 15, 1990) is designated nonattainment for PM–10;

(ii) any area containing a site for which air quality monitoring data show a violation of the national ambient air quality standard for PM–10 before January 1, 1989 (as determined under part 50, appendix K of title 40 of the Code of Federal Regulations) is hereby designated nonattainment for PM–10; and

(iii) each area not described in clause (i) or (ii) is hereby designated unclassifiable for PM–10.

Any designation for particulate matter (measured in terms of total suspended particulates) that the Administrator promulgated pursuant to this subsection (as in effect immediately before November 15, 1990) shall remain in effect for purposes of implementing the maximum allowable increases in concentrations of particulate matter (measured in terms of total suspended particulates) pursuant to section 7473(b) of this title, until the Administrator determines that such designation is no longer necessary for that purpose.

(5) Designations for lead

The Administrator may, in the Administrator's discretion at any time the Administrator deems appropriate, require a State to designate areas (or portions thereof) with respect to the national ambient air quality standard for lead in effect as of November 15, 1990, in accordance with the procedures under subparagraphs (A) and (B) of paragraph (1), except that in applying subparagraph (B)(i) of paragraph (1) the phrase ''2 years from the date of promulgation of the new or revised national ambient air quality standard'' shall be replaced by the phrase ''1 year from the date the Administrator notifies the State of the requirement to designate areas with respect to the standard for lead''.

(6) Designations

(A) Submission

Notwithstanding any other provision of law, not later than February 15, 2004, the Governor of each State shall submit designations referred to in paragraph (1) for the July 1997 $PM_{2.5}$ national ambient air quality standards for each area within the State, based on air quality monitoring data collected in accordance with any applicable Federal reference methods for the relevant areas.

(B) Promulgation

Notwithstanding any other provision of law, not later than December 31, 2004, the Administrator shall, consistent with paragraph (1), promulgate the designations referred to in subparagraph (A) for each area of each State for the July 1997 $PM_{2.5}$ national ambient air quality standards.

(7) Implementation plan for regional haze

(A) In general

Notwithstanding any other provision of law, not later than 3 years after the date on which the Administrator promulgates the designations referred to in paragraph (6)(B) for a State, the State shall submit, for the entire State, the State implementation plan revisions to meet the requirements promulgated by the Administrator under section 7492(e)(1) of this title (referred to in this paragraph as ''regional haze requirements'').

(B) No preclusion of other provisions

Nothing in this paragraph precludes the implementation of the agreements and recommendations stemming from the Grand Canyon Visibility Transport Commission Report dated June 1996, including the submission of State implementation plan revisions by the States of Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah, or Wyoming by December 31,

2003, for implementation of regional haze requirements applicable to those States.

(e) Redesignation of air quality control regions

(1) Except as otherwise provided in paragraph (2), the Governor of each State is authorized, with the approval of the Administrator, to redesignate from time to time the air quality control regions within such State for purposes of efficient and effective air quality management. Upon such redesignation, the list under subsection (d) shall be modified accordingly.

(2) In the case of an air quality control region in a State, or part of such region, which the Administrator finds may significantly affect air pollution concentrations in another State, the Governor of the State in which such region, or part of a region, is located may redesignate from time to time the boundaries of so much of such air quality control region as is located within such State only with the approval of the Administrator and with the consent of all Governors of all States which the Administrator determines may be significantly affected.

(3) No compliance date extension granted under section 7413(d)(5)[1] of this title (relating to coal conversion) shall cease to be effective by reason of the regional limitation provided in section 7413(d)(5)[1] of this title if the violation of such limitation is due solely to a redesignation of a region under this subsection.

(July 14, 1955, ch. 360, title I, §107, as added Pub. L. 91–604, §4(a), Dec. 31, 1970, 84 Stat. 1678; amended Pub. L. 95–95, title I, §103, Aug. 7, 1977, 91 Stat. 687; Pub. L. 101–549, title I, §101(a), Nov. 15, 1990, 104 Stat. 2399; Pub. L. 108–199, div. G, title IV, §425(a), Jan. 23, 2004, 118 Stat. 417.)

REFERENCES IN TEXT

Section 7413 of this title, referred to in subsec. (e)(3), was amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, subsec. (d) of section 7413 no longer relates to final compliance orders.

CODIFICATION

Section was formerly classified to section 1857c–2 of this title.

PRIOR PROVISIONS

A prior section 107 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90–148, §2, 81 Stat. 490, related to air quality control regions and was classified to section 1857c–2 of this title, prior to repeal by Pub. L. 91–604.

Another prior section 107 of act July 14, 1955, as added Dec. 17, 1963, Pub. L. 88–206, §1, 77 Stat. 399, was renumbered section 111 by Pub. L. 90–148 and is classified to section 7411 of this title.

AMENDMENTS

2004—Subsec. (d)(6), (7). Pub. L. 108–199 added pars. (6) and (7).

1990—Subsec. (d). Pub. L. 101–549 amended subsec. (d) generally, substituting present provisions for provisions which required States to submit lists of regions not in compliance on Aug. 7, 1977, with certain air quality standards to be submitted to the Administrator, and which authorized States to revise and resubmit such lists from time to time.

1977—Subsecs. (d), (e). Pub. L. 95–95 added subsecs. (d) and (e).

[1] See References in Text note below.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

OZONE AND PARTICULATE MATTER STANDARDS

Pub. L. 108–199, div. G, title IV, §425(b), Jan. 23, 2004, 118 Stat. 417, provided that: ''Except as provided in paragraphs (6) and (7) of section 107(d) of the Clean Air Act [subsec. (d)(6), (7) of this section] (as added by subsection (a)), section 6101, subsections (a) and (b) of section 6102, and section 6103 of the Transportation Equity Act for the 21st Century [Pub. L. 105–178] (42 U.S.C. 7407 note; 112 Stat. 463), as in effect on the day before the date of enactment of this Act [Jan. 23, 2004], shall remain in effect.''

Pub. L. 105–178, title VI, June 9, 1998, 112 Stat. 463, as amended by Pub. L. 109–59, title VI, §6012(a), Aug. 10, 2005, 119 Stat. 1882, provided that:

''SEC. 6101. FINDINGS AND PURPOSE.

''(a) The Congress finds that—

''(1) there is a lack of air quality monitoring data for fine particle levels, measured as $PM_{2.5}$, in the United States and the States should receive full funding for the monitoring efforts;

''(2) such data would provide a basis for designating areas as attainment or nonattainment for any $PM_{2.5}$ national ambient air quality standards pursuant to the standards promulgated in July 1997;

''(3) the President of the United States directed the Administrator of the Environmental Protection Agency (referred to in this title as the 'Administrator') in a memorandum dated July 16, 1997, to complete the next periodic review of the particulate matter national ambient air quality standards by July 2002 in order to determine 'whether to revise or maintain the standards';

''(4) the Administrator has stated that 3 years of air quality monitoring data for fine particle levels, measured as $PM_{2.5}$ and performed in accordance with any applicable Federal reference methods, is appropriate for designating areas as attainment or nonattainment pursuant to the July 1997 promulgated standards; and

''(5) the Administrator has acknowledged that in drawing boundaries for attainment and nonattainment areas for the July 1997 ozone national air quality standards, Governors would benefit from considering implementation guidance from EPA on drawing area boundaries.

''(b) The purposes of this title are—

''(1) to ensure that 3 years of air quality monitoring data regarding fine particle levels are gathered for use in the determination of area attainment or nonattainment designations respecting any $PM_{2.5}$ national ambient air quality standards;

''(2) to ensure that the Governors have adequate time to consider implementation guidance from EPA on drawing area boundaries prior to submitting area designations respecting the July 1997 ozone national ambient air quality standards;

''(3) to ensure that the schedule for implementation of the July 1997 revisions of the ambient air quality standards for particulate matter and the schedule for the Environmental Protection Agency's visibility regulations related to regional haze are consistent with the timetable for implementation of such particulate matter standards as set forth in the President's Implementation Memorandum dated July 16, 1997.

''SEC. 6102. PARTICULATE MATTER MONITORING PROGRAM.

''(a) Through grants under section 103 of the Clean Air Act [42 U.S.C. 7403] the Administrator of the Environmental Protection Agency shall use appropriated funds no later than fiscal year 2000 to fund 100 percent of the cost of the establishment, purchase, operation

and maintenance of a $PM_{2.5}$ monitoring network necessary to implement the national ambient air quality standards for $PM_{2.5}$ under section 109 of the Clean Air Act [42 U.S.C. 7409]. This implementation shall not result in a diversion or reprogramming of funds from other Federal, State or local Clean Air Act activities. Any funds previously diverted or reprogrammed from section 105 Clean Air Act [42 U.S.C. 7405] grants for $PM_{2.5}$ monitors must be restored to State or local air programs in fiscal year 1999.

''(b) EPA and the States, consistent with their respective authorities under the Clean Air Act [42 U.S.C. 7401 et seq.], shall ensure that the national network (designated in subsection (a)) which consists of the $PM_{2.5}$ monitors necessary to implement the national ambient air quality standards is established by December 31, 1999.

''(c)(1) The Governors shall be required to submit designations referred to in section 107(d)(1) of the Clean Air Act [42 U.S.C. 7407(d)(1)] for each area following promulgation of the July 1997 $PM_{2.5}$ national ambient air quality standard within 1 year after receipt of 3 years of air quality monitoring data performed in accordance with any applicable Federal reference methods for the relevant areas. Only data from the monitoring network designated in subsection (a) and other Federal reference method $PM_{2.5}$ monitors shall be considered for such designations. Nothing in the previous sentence shall be construed as affecting the Governor's authority to designate an area initially as nonattainment, and the Administrator's authority to promulgate the designation of an area as nonattainment, under section 107(d)(1) of the Clean Air Act, based on its contribution to ambient air quality in a nearby nonattainment area.

''(2) For any area designated as nonattainment for the July 1997 $PM_{2.5}$ national ambient air quality standard in accordance with the schedule set forth in this section, notwithstanding the time limit prescribed in paragraph (2) of section 169B(e) of the Clean Air Act [42 U.S.C. 7492(e)(2)], the Administrator shall require State implementation plan revisions referred to in such paragraph (2) to be submitted at the same time as State implementation plan revisions referred to in section 172 of the Clean Air Act [42 U.S.C. 7502] implementing the revised national ambient air quality standard for fine particulate matter are required to be submitted. For any area designated as attainment or unclassifiable for such standard, the Administrator shall require the State implementation plan revisions referred to in such paragraph (2) to be submitted 1 year after the area has been so designated. The preceding provisions of this paragraph shall not preclude the implementation of the agreements and recommendations set forth in the Grand Canyon Visibility Transport Commission Report dated June 1996.

''(d) The Administrator shall promulgate the designations referred to in section 107(d)(1) of the Clean Air Act [42 U.S.C. 7407(d)(1)] for each area following promulgation of the July 1997 $PM_{2.5}$ national ambient air quality standard by the earlier of 1 year after the initial designations required under subsection (c)(1) are required to be submitted or December 31, 2005.

''(e) FIELD STUDY.—Not later than 2 years after the date of enactment of the SAFETEA–LU [Aug. 10, 2005], the Administrator shall—

''(1) conduct a field study of the ability of the $PM_{2.5}$ Federal Reference Method to differentiate those particles that are larger than 2.5 micrometers in diameter;

''(2) develop a Federal reference method to measure directly particles that are larger than 2.5 micrometers in diameter without reliance on subtracting from coarse particle measurements those particles that are equal to or smaller than 2.5 micrometers in diameter;

''(3) develop a method of measuring the composition of coarse particles; and

''(4) submit a report on the study and responsibilities of the Administrator under paragraphs (1) through (3) to—

''(A) the Committee on Energy and Commerce of the House of Representatives; and

''(B) the Committee on Environment and Public Works of the Senate.

''SEC. 6103. OZONE DESIGNATION REQUIREMENTS.

''(a) The Governors shall be required to submit the designations referred to in section 107(d)(1) of the Clean Air Act [42 U.S.C. 7407(d)(1)] within 2 years following the promulgation of the July 1997 ozone national ambient air quality standards.

''(b) The Administrator shall promulgate final designations no later than 1 year after the designations required under subsection (a) are required to be submitted.

''SEC. 6104. ADDITIONAL PROVISIONS.

''Nothing in sections 6101 through 6103 shall be construed by the Administrator of Environmental Protection Agency or any court, State, or person to affect any pending litigation or to be a ratification of the ozone or $PM_{2.5}$ standards.''

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7408. Air quality criteria and control techniques

(a) Air pollutant list; publication and revision by Administrator; issuance of air quality criteria for air pollutants

(1) For the purpose of establishing national primary and secondary ambient air quality standards, the Administrator shall within 30 days after December 31, 1970, publish, and shall from time to time thereafter revise, a list which includes each air pollutant—

(A) emissions of which, in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare;

(B) the presence of which in the ambient air results from numerous or diverse mobile or stationary sources; and

(C) for which air quality criteria had not been issued before December 31, 1970 but for which he plans to issue air quality criteria under this section.

(2) The Administrator shall issue air quality criteria for an air pollutant within 12 months after he has included such pollutant in a list

under paragraph (1). Air quality criteria for an air pollutant shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities. The criteria for an air pollutant, to the extent practicable, shall include information on—

(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;

(B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and

(C) any known or anticipated adverse effects on welfare.

(b) Issuance by Administrator of information on air pollution control techniques; standing consulting committees for air pollutants; establishment; membership

(1) Simultaneously with the issuance of criteria under subsection (a), the Administrator shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on air pollution control techniques, which information shall include data relating to the cost of installation and operation, energy requirements, emission reduction benefits, and environmental impact of the emission control technology. Such information shall include such data as are available on available technology and alternative methods of prevention and control of air pollution. Such information shall also include data on alternative fuels, processes, and operating methods which will result in elimination or significant reduction of emissions.

(2) In order to assist in the development of information on pollution control techniques, the Administrator may establish a standing consulting committee for each air pollutant included in a list published pursuant to subsection (a)(1), which shall be comprised of technically qualified individuals representative of State and local governments, industry, and the academic community. Each such committee shall submit, as appropriate, to the Administrator information related to that required by paragraph (1).

(c) Review, modification, and reissuance of criteria or information

The Administrator shall from time to time review, and, as appropriate, modify, and reissue any criteria or information on control techniques issued pursuant to this section. Not later than six months after August 7, 1977, the Administrator shall revise and reissue criteria relating to concentrations of NO_2 over such period (not more than three hours) as he deems appropriate. Such criteria shall include a discussion of nitric and nitrous acids, nitrites, nitrates, nitrosamines, and other carcinogenic and potentially carcinogenic derivatives of oxides of nitrogen.

(d) Publication in Federal Register; availability of copies for general public

The issuance of air quality criteria and information on air pollution control techniques shall be announced in the Federal Register and copies shall be made available to the general public.

(e) Transportation planning and guidelines

The Administrator shall, after consultation with the Secretary of Transportation, and after providing public notice and opportunity for comment, and with State and local officials, within nine months after November 15, 1990,[1] and periodically thereafter as necessary to maintain a continuous transportation-air quality planning process, update the June 1978 Transportation-Air Quality Planning Guidelines and publish guidance on the development and implementation of transportation and other measures necessary to demonstrate and maintain attainment of national ambient air quality standards. Such guidelines shall include information on—

(1) methods to identify and evaluate alternative planning and control activities;

(2) methods of reviewing plans on a regular basis as conditions change or new information is presented;

(3) identification of funds and other resources necessary to implement the plan, including interagency agreements on providing such funds and resources;

(4) methods to assure participation by the public in all phases of the planning process; and

(5) such other methods as the Administrator determines necessary to carry out a continuous planning process.

(f) Information regarding processes, procedures, and methods to reduce or control pollutants in transportation; reduction of mobile source related pollutants; reduction of impact on public health

(1) The Administrator shall publish and make available to appropriate Federal, State, and local environmental and transportation agencies not later than one year after November 15, 1990, and from time to time thereafter—

(A) information prepared, as appropriate, in consultation with the Secretary of Transportation, and after providing public notice and opportunity for comment, regarding the formulation and emission reduction potential of transportation control measures related to criteria pollutants and their precursors, including, but not limited to—

(i) programs for improved public transit;

(ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;

(iii) employer-based transportation management plans, including incentives;

(iv) trip-reduction ordinances;

(v) traffic flow improvement programs that achieve emission reductions;

(vi) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service;

(vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;

(viii) programs for the provision of all forms of high-occupancy, shared-ride services;

[1] See Codification note below.

(ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;

(x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;

(xi) programs to control extended idling of vehicles;

(xii) programs to reduce motor vehicle emissions, consistent with subchapter II, which are caused by extreme cold start conditions;

(xiii) employer-sponsored programs to permit flexible work schedules;

(xiv) programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;

(xv) programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior; and

(xvi) program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.[2]

(B) information on additional methods or strategies that will contribute to the reduction of mobile source related pollutants during periods in which any primary ambient air quality standard will be exceeded and during episodes for which an air pollution alert, warning, or emergency has been declared;

(C) information on other measures which may be employed to reduce the impact on public health or protect the health of sensitive or susceptible individuals or groups; and

(D) information on the extent to which any process, procedure, or method to reduce or control such air pollutant may cause an increase in the emissions or formation of any other pollutant.

(2) In publishing such information the Administrator shall also include an assessment of—

(A) the relative effectiveness of such processes, procedures, and methods;

(B) the potential effect of such processes, procedures, and methods on transportation systems and the provision of transportation services; and

(C) the environmental, energy, and economic impact of such processes, procedures, and methods.

(g) Assessment of risks to ecosystems

The Administrator may assess the risks to ecosystems from exposure to criteria air pollutants (as identified by the Administrator in the Administrator's sole discretion).

(h) RACT/BACT/LAER clearinghouse

The Administrator shall make information regarding emission control technology available to the States and to the general public through a central database. Such information shall include all control technology information received pursuant to State plan provisions requiring permits for sources, including operating permits for existing sources.

(July 14, 1955, ch. 360, title I, § 108, as added Pub. L. 91–604, § 4(a), Dec. 31, 1970, 84 Stat. 1678; amended Pub. L. 95–95, title I, §§ 104, 105, title IV, § 401(a), Aug. 7, 1977, 91 Stat. 689, 790; Pub. L. 101–549, title I, §§ 108(a)–(c), (*o*), 111, Nov. 15, 1990, 104 Stat. 2465, 2466, 2469, 2470; Pub. L. 105–362, title XV, § 1501(b), Nov. 10, 1998, 112 Stat. 3294.)

CODIFICATION

November 15, 1990, referred to in subsec. (e), was in the original "enactment of the Clean Air Act Amendments of 1989", and was translated as meaning the date of the enactment of Pub. L. 101–549, popularly known as the Clean Air Act Amendments of 1990, to reflect the probable intent of Congress.

Section was formerly classified to section 1857c–3 of this title.

PRIOR PROVISIONS

A prior section 108 of act July 14, 1955, was renumbered section 115 by Pub. L. 91–604 and is classified to section 7415 of this title.

AMENDMENTS

1998—Subsec. (f)(3), (4). Pub. L. 105–362 struck out par. (3), which required reports by the Secretary of Transportation and the Administrator to be submitted to Congress by Jan. 1, 1993, and every 3 years thereafter, reviewing and analyzing existing State and local air quality related transportation programs, evaluating achievement of goals, and recommending changes to existing programs, and par. (4), which required that in each report after the first report the Secretary of Transportation include a description of the actions taken to implement the changes recommended in the preceding report.

1990—Subsec. (e). Pub. L. 101–549, § 108(a), inserted first sentence and struck out former first sentence which read as follows: "The Administrator shall, after consultation with the Secretary of Transportation and the Secretary of Housing and Urban Development and State and local officials and within 180 days after August 7, 1977, and from time to time thereafter, publish guidelines on the basic program elements for the planning process assisted under section 7505 of this title."

Subsec. (f)(1). Pub. L. 101–549, § 108(b), in introductory provisions, substituted present provisions for provisions relating to Federal agencies, States, and air pollution control agencies within either 6 months or one year after Aug. 7, 1977.

Subsec. (f)(1)(A). Pub. L. 101–549, § 108(b), substituted present provisions for provisions relating to information prepared in cooperation with Secretary of Transportation, regarding processes, procedures, and methods to reduce certain pollutants.

Subsec. (f)(3), (4). Pub. L. 101–549, § 111, added pars. (3) and (4).

Subsec. (g). Pub. L. 101–549, § 108(*o*), added subsec. (g).

Subsec. (h). Pub. L. 101–549, § 108(c), added subsec. (h).

1977—Subsec. (a)(1)(A). Pub. L. 95–95, § 401(a), substituted "emissions of which, in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare" for "which in his judgment has an adverse effect on public health or welfare".

[2] So in original. The period probably should be a semicolon.

Subsec. (b)(1). Pub. L. 95–95, § 104(a), substituted ''cost of installation and operation, energy requirements, emission reduction benefits, and environmental impact of the emission control technology'' for ''technology and costs of emission control''.

Subsec. (c). Pub. L. 95–95, § 104(b), inserted provision directing the Administrator, not later than six months after Aug. 7, 1977, to revise and reissue criteria relating to concentrations of NO_2 over such period (not more than three hours) as he deems appropriate, with the criteria to include a discussion of nitric and nitrous acids, nitrites, nitrates, nitrosamines, and other carcinogenic and potentially carcinogenic derivatives of oxides of nitrogen.

Subsecs. (e), (f). Pub. L. 95–95, § 105, added subsecs. (e) and (f).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7409. National primary and secondary ambient air quality standards

(a) Promulgation

(1) The Administrator—

(A) within 30 days after December 31, 1970, shall publish proposed regulations prescribing a national primary ambient air quality standard and a national secondary ambient air quality standard for each air pollutant for which air quality criteria have been issued prior to such date; and

(B) after a reasonable time for interested persons to submit written comments thereon (but no later than 90 days after the initial publication of such proposed standards) shall by regulation promulgate such proposed national primary and secondary ambient air quality standards with such modifications as he deems appropriate.

(2) With respect to any air pollutant for which air quality criteria are issued after December 31, 1970, the Administrator shall publish, simultaneously with the issuance of such criteria and information, proposed national primary and secondary ambient air quality standards for any such pollutant. The procedure provided for in paragraph (1)(B) of this subsection shall apply to the promulgation of such standards.

(b) Protection of public health and welfare

(1) National primary ambient air quality standards, prescribed under subsection (a) shall be ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health. Such primary standards may be revised in the same manner as promulgated.

(2) Any national secondary ambient air quality standard prescribed under subsection (a) shall specify a level of air quality the attainment and maintenance of which in the judgment of the Administrator, based on such criteria, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. Such secondary standards may be revised in the same manner as promulgated.

(c) National primary ambient air quality standard for nitrogen dioxide

The Administrator shall, not later than one year after August 7, 1977, promulgate a national primary ambient air quality standard for NO_2 concentrations over a period of not more than 3 hours unless, based on the criteria issued under section 7408(c) of this title, he finds that there is no significant evidence that such a standard for such a period is requisite to protect public health.

(d) Review and revision of criteria and standards; independent scientific review committee; appointment; advisory functions

(1) Not later than December 31, 1980, and at five-year intervals thereafter, the Administrator shall complete a thorough review of the criteria published under section 7408 of this title and the national ambient air quality standards promulgated under this section and shall make such revisions in such criteria and standards and promulgate such new standards as may be appropriate in accordance with section 7408 of this title and subsection (b) of this section. The Administrator may review and revise criteria or promulgate new standards earlier or more frequently than required under this paragraph.

(2)(A) The Administrator shall appoint an independent scientific review committee composed of seven members including at least one member of the National Academy of Sciences, one physician, and one person representing State air pollution control agencies.

(B) Not later than January 1, 1980, and at five-year intervals thereafter, the committee referred to in subparagraph (A) shall complete a review of the criteria published under section 7408 of this title and the national primary and secondary ambient air quality standards promulgated under this section and shall recommend to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate under section 7408 of this title and subsection (b) of this section.

(C) Such committee shall also (i) advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised national ambient air quality standards, (ii) describe the research efforts necessary to provide the required information, (iii) advise the Administrator on the relative contribution to air pollution concentrations of natural as well as anthropogenic activity, and (iv) advise the Administrator of any adverse public health, welfare, so-

cial, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.

(July 14, 1955, ch. 360, title I, § 109, as added Pub. L. 91–604, § 4(a), Dec. 31, 1970, 84 Stat. 1679; amended Pub. L. 95–95, title I, § 106, Aug. 7, 1977, 91 Stat. 691.)

CODIFICATION

Section was formerly classified to section 1857c–4 of this title.

PRIOR PROVISIONS

A prior section 109 of act July 14, 1955, was renumbered section 116 by Pub. L. 91–604 and is classified to section 7416 of this title.

AMENDMENTS

1977—Subsec. (c). Pub. L. 95–95, § 106(b), added subsec. (c).

Subsec. (d). Pub. L. 95–95, § 106(a), added subsec. (d).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

ROLE OF SECONDARY STANDARDS

Pub. L. 101–549, title VIII, § 817, Nov. 15, 1990, 104 Stat. 2697, provided that:

''(a) REPORT.—The Administrator shall request the National Academy of Sciences to prepare a report to the Congress on the role of national secondary ambient air quality standards in protecting welfare and the environment. The report shall:

''(1) include information on the effects on welfare and the environment which are caused by ambient concentrations of pollutants listed pursuant to section 108 [42 U.S.C. 7408] and other pollutants which may be listed;

''(2) estimate welfare and environmental costs incurred as a result of such effects;

''(3) examine the role of secondary standards and the State implementation planning process in preventing such effects;

''(4) determine ambient concentrations of each such pollutant which would be adequate to protect welfare and the environment from such effects;

''(5) estimate the costs and other impacts of meeting secondary standards; and

''(6) consider other means consistent with the goals and objectives of the Clean Air Act [42 U.S.C. 7401 et seq.] which may be more effective than secondary standards in preventing or mitigating such effects.

''(b) SUBMISSION TO CONGRESS; COMMENTS; AUTHORIZATION.—(1) The report shall be transmitted to the Congress not later than 3 years after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990].

''(2) At least 90 days before issuing a report the Administrator shall provide an opportunity for public comment on the proposed report. The Administrator shall include in the final report a summary of the comments received on the proposed report.

''(3) There are authorized to be appropriated such sums as are necessary to carry out this section.''

§ 7410. State implementation plans for national primary and secondary ambient air quality standards

(a) Adoption of plan by State; submission to Administrator; content of plan; revision; new sources; indirect source review program; supplemental or intermittent control systems

(1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 7409 of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State. Unless a separate public hearing is provided, each State shall consider its plan implementing such secondary standard at the hearing required by the first sentence of this paragraph.

(2) Each implementation plan submitted by a State under this chapter shall be adopted by the State after reasonable notice and public hearing. Each such plan shall—

(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter;

(B) provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to—

(i) monitor, compile, and analyze data on ambient air quality, and

(ii) upon request, make such data available to the Administrator;

(C) include a program to provide for the enforcement of the measures described in subparagraph (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;

(D) contain adequate provisions—

(i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or

(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility,

(ii) insuring compliance with the applicable requirements of sections 7426 and 7415 of this title (relating to interstate and international pollution abatement);

(E) provide (i) necessary assurances that the State (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the State or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof), (ii) requirements that the State comply with the requirements respecting State boards under section 7428 of this title, and (iii) necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision;

(F) require, as may be prescribed by the Administrator—

(i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions from such sources,

(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and

(iii) correlation of such reports by the State agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection;

(G) provide for authority comparable to that in section 7603 of this title and adequate contingency plans to implement such authority;

(H) provide for revision of such plan—

(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and

(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it implements or to otherwise comply with any additional requirements established under this chapter;

(I) in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);

(J) meet the applicable requirements of section 7421 of this title (relating to consultation), section 7427 of this title (relating to public notification), and part C (relating to prevention of significant deterioration of air quality and visibility protection);

(K) provide for—

(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and

(ii) the submission, upon request, of data related to such air quality modeling to the Administrator;

(L) require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this chapter, a fee sufficient to cover—

(i) the reasonable costs of reviewing and acting upon any application for such a permit, and

(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),

until such fee requirement is superseded with respect to such sources by the Administrator's approval of a fee program under subchapter V; and

(M) provide for consultation and participation by local political subdivisions affected by the plan.

(3)(A) Repealed. Pub. L. 101–549, title I, § 101(d)(1), Nov. 15, 1990, 104 Stat. 2409.

(B) As soon as practicable, the Administrator shall, consistent with the purposes of this chapter and the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C. 791 et seq.], review each State's applicable implementation plans and report to the State on whether such plans can be revised in relation to fuel burning stationary sources (or persons supplying fuel to such sources) without interfering with the attainment and maintenance of any national ambient air quality standard within the period permitted in this section. If the Administrator determines that any such plan can be revised, he

shall notify the State that a plan revision may be submitted by the State. Any plan revision which is submitted by the State shall, after public notice and opportunity for public hearing, be approved by the Administrator if the revision relates only to fuel burning stationary sources (or persons supplying fuel to such sources), and the plan as revised complies with paragraph (2) of this subsection. The Administrator shall approve or disapprove any revision no later than three months after its submission.

(C) Neither the State, in the case of a plan (or portion thereof) approved under this subsection, nor the Administrator, in the case of a plan (or portion thereof) promulgated under subsection (c), shall be required to revise an applicable implementation plan because one or more exemptions under section 7418 of this title (relating to Federal facilities), enforcement orders under section 7413(d)[1] of this title, suspensions under subsection (f) or (g) (relating to temporary energy or economic authority), orders under section 7419 of this title (relating to primary nonferrous smelters), or extensions of compliance in decrees entered under section 7413(e)[1] of this title (relating to iron- and steel-producing operations) have been granted, if such plan would have met the requirements of this section if no such exemptions, orders, or extensions had been granted.

(4) Repealed. Pub. L. 101–549, title I, § 101(d)(2), Nov. 15, 1990, 104 Stat. 2409.

(5)(A)(i) Any State may include in a State implementation plan, but the Administrator may not require as a condition of approval of such plan under this section, any indirect source review program. The Administrator may approve and enforce, as part of an applicable implementation plan, an indirect source review program which the State chooses to adopt and submit as part of its plan.

(ii) Except as provided in subparagraph (B), no plan promulgated by the Administrator shall include any indirect source review program for any air quality control region, or portion thereof.

(iii) Any State may revise an applicable implementation plan approved under this subsection to suspend or revoke any such program included in such plan, provided that such plan meets the requirements of this section.

(B) The Administrator shall have the authority to promulgate, implement and enforce regulations under subsection (c) respecting indirect source review programs which apply only to federally assisted highways, airports, and other major federally assisted indirect sources and federally owned or operated indirect sources.

(C) For purposes of this paragraph, the term ''indirect source'' means a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. Such term includes parking lots, parking garages, and other facilities subject to any measure for management of parking supply (within the meaning of subsection (c)(2)(D)(ii)), including regulation of existing off-street parking but such term does not include new or existing on-street parking. Direct emissions sources or facilities at, within, or associated with, any indirect source shall not be deemed indirect sources for the purpose of this paragraph.

(D) For purposes of this paragraph the term ''indirect source review program'' means the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution, the emissions from which would cause or contribute to air pollution concentrations—

(i) exceeding any national primary ambient air quality standard for a mobile source-related air pollutant after the primary standard attainment date, or

(ii) preventing maintenance of any such standard after such date.

(E) For purposes of this paragraph and paragraph (2)(B), the term ''transportation control measure'' does not include any measure which is an ''indirect source review program''.

(6) No State plan shall be treated as meeting the requirements of this section unless such plan provides that in the case of any source which uses a supplemental, or intermittent control system for purposes of meeting the requirements of an order under section 7413(d)[1] of this title or section 7419 of this title (relating to primary nonferrous smelter orders), the owner or operator of such source may not temporarily reduce the pay of any employee by reason of the use of such supplemental or intermittent or other dispersion dependent control system.

(b) Extension of period for submission of plans

The Administrator may, wherever he determines necessary, extend the period for submission of any plan or portion thereof which implements a national secondary ambient air quality standard for a period not to exceed 18 months from the date otherwise required for submission of such plan.

(c) Preparation and publication by Administrator of proposed regulations setting forth implementation plan; transportation regulations study and report; parking surcharge; suspension authority; plan implementation

(1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator—

(A) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria established under subsection (k)(1)(A), or

(B) disapproves a State implementation plan submission in whole or in part,

unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.

(2)(A) Repealed. Pub. L. 101–549, title I, § 101(d)(3)(A), Nov. 15, 1990, 104 Stat. 2409.

(B) No parking surcharge regulation may be required by the Administrator under paragraph (1) of this subsection as a part of an applicable implementation plan. All parking surcharge regulations previously required by the Adminis-

[1] See References in Text note below.

trator shall be void upon June 22, 1974. This subparagraph shall not prevent the Administrator from approving parking surcharges if they are adopted and submitted by a State as part of an applicable implementation plan. The Administrator may not condition approval of any implementation plan submitted by a State on such plan's including a parking surcharge regulation.

(C) Repealed. Pub. L. 101–549, title I, § 101(d)(3)(B), Nov. 15, 1990, 104 Stat. 2409.

(D) For purposes of this paragraph—

(i) The term ''parking surcharge regulation'' means a regulation imposing or requiring the imposition of any tax, surcharge, fee, or other charge on parking spaces, or any other area used for the temporary storage of motor vehicles.

(ii) The term ''management of parking supply'' shall include any requirement providing that any new facility containing a given number of parking spaces shall receive a permit or other prior approval, issuance of which is to be conditioned on air quality considerations.

(iii) The term ''preferential bus/carpool lane'' shall include any requirement for the setting aside of one or more lanes of a street or highway on a permanent or temporary basis for the exclusive use of buses or carpools, or both.

(E) No standard, plan, or requirement, relating to management of parking supply or preferential bus/carpool lanes shall be promulgated after June 22, 1974, by the Administrator pursuant to this section, unless such promulgation has been subjected to at least one public hearing which has been held in the area affected and for which reasonable notice has been given in such area. If substantial changes are made following public hearings, one or more additional hearings shall be held in such area after such notice.

(3) Upon application of the chief executive officer of any general purpose unit of local government, if the Administrator determines that such unit has adequate authority under State or local law, the Administrator may delegate to such unit the authority to implement and enforce within the jurisdiction of such unit any part of a plan promulgated under this subsection. Nothing in this paragraph shall prevent the Administrator from implementing or enforcing any applicable provision of a plan promulgated under this subsection.

(4) Repealed. Pub. L. 101–549, title I, § 101(d)(3)(C), Nov. 15, 1990, 104 Stat. 2409.

(5)(A) Any measure in an applicable implementation plan which requires a toll or other charge for the use of a bridge located entirely within one city shall be eliminated from such plan by the Administrator upon application by the Governor of the State, which application shall include a certification by the Governor that he will revise such plan in accordance with subparagraph (B).

(B) In the case of any applicable implementation plan with respect to which a measure has been eliminated under subparagraph (A), such plan shall, not later than one year after August 7, 1977, be revised to include comprehensive measures to:

(i) establish, expand, or improve public transportation measures to meet basic transportation needs, as expeditiously as is practicable; and

(ii) implement transportation control measures necessary to attain and maintain national ambient air quality standards,

and such revised plan shall, for the purpose of implementing such comprehensive public transportation measures, include requirements to use (insofar as is necessary) Federal grants, State or local funds, or any combination of such grants and funds as may be consistent with the terms of the legislation providing such grants and funds. Such measures shall, as a substitute for the tolls or charges eliminated under subparagraph (A), provide for emissions reductions equivalent to the reductions which may reasonably be expected to be achieved through the use of the tolls or charges eliminated.

(C) Any revision of an implementation plan for purposes of meeting the requirements of subparagraph (B) shall be submitted in coordination with any plan revision required under part D.

(d), (e) Repealed. Pub. L. 101–549, title I, § 101(d)(4), (5), Nov. 15, 1990, 104 Stat. 2409

(f) National or regional energy emergencies; determination by President

(1) Upon application by the owner or operator of a fuel burning stationary source, and after notice and opportunity for public hearing, the Governor of the State in which such source is located may petition the President to determine that a national or regional energy emergency exists of such severity that—

(A) a temporary suspension of any part of the applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) may be necessary, and

(B) other means of responding to the energy emergency may be inadequate.

Such determination shall not be delegable by the President to any other person. If the President determines that a national or regional energy emergency of such severity exists, a temporary emergency suspension of any part of an applicable implementation plan or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets) adopted by the State may be issued by the Governor of any State covered by the President's determination under the condition specified in paragraph (2) and may take effect immediately.

(2) A temporary emergency suspension under this subsection shall be issued to a source only if the Governor of such State finds that—

(A) there exists in the vicinity of such source a temporary energy emergency involving high levels of unemployment or loss of necessary energy supplies for residential dwellings; and

(B) such unemployment or loss can be totally or partially alleviated by such emergency suspension.

Not more than one such suspension may be issued for any source on the basis of the same set of circumstances or on the basis of the same emergency.

(3) A temporary emergency suspension issued by a Governor under this subsection shall re-

main in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator, if any. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of paragraph (2).

(4) This subsection shall not apply in the case of a plan provision or requirement promulgated by the Administrator under subsection (c) of this section, but in any such case the President may grant a temporary emergency suspension for a four month period of any such provision or requirement if he makes the determinations and findings specified in paragraphs (1) and (2).

(5) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 1857c–10[2] of this title, as in effect before August 7, 1977, or section 7413(d)[2] of this title, upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

(g) Governor's authority to issue temporary emergency suspensions

(1) In the case of any State which has adopted and submitted to the Administrator a proposed plan revision which the State determines—

(A) meets the requirements of this section, and

(B) is necessary (i) to prevent the closing for one year or more of any source of air pollution, and (ii) to prevent substantial increases in unemployment which would result from such closing, and

which the Administrator has not approved or disapproved under this section within 12 months of submission of the proposed plan revision, the Governor may issue a temporary emergency suspension of the part of the applicable implementation plan for such State which is proposed to be revised with respect to such source. The determination under subparagraph (B) may not be made with respect to a source which would close without regard to whether or not the proposed plan revision is approved.

(2) A temporary emergency suspension issued by a Governor under this subsection shall remain in effect for a maximum of four months or such lesser period as may be specified in a disapproval order of the Administrator. The Administrator may disapprove such suspension if he determines that it does not meet the requirements of this subsection.

(3) The Governor may include in any temporary emergency suspension issued under this subsection a provision delaying for a period identical to the period of such suspension any compliance schedule (or increment of progress) to which such source is subject under section 1857c–10[2] of this title as in effect before August 7, 1977, or under section 7413(d)[2] of this title upon a finding that such source is unable to comply with such schedule (or increment) solely because of the conditions on the basis of which a suspension was issued under this subsection.

[2] See References in Text note below.

(h) Publication of comprehensive document for each State setting forth requirements of applicable implementation plan

(1) Not later than 5 years after November 15, 1990, and every 3 years thereafter, the Administrator shall assemble and publish a comprehensive document for each State setting forth all requirements of the applicable implementation plan for such State and shall publish notice in the Federal Register of the availability of such documents.

(2) The Administrator may promulgate such regulations as may be reasonably necessary to carry out the purpose of this subsection.

(i) Modification of requirements prohibited

Except for a primary nonferrous smelter order under section 7419 of this title, a suspension under subsection (f) or (g) (relating to emergency suspensions), an exemption under section 7418 of this title (relating to certain Federal facilities), an order under section 7413(d)[2] of this title (relating to compliance orders), a plan promulgation under subsection (c), or a plan revision under subsection (a)(3); no order, suspension, plan revision, or other action modifying any requirement of an applicable implementation plan may be taken with respect to any stationary source by the State or by the Administrator.

(j) Technological systems of continuous emission reduction on new or modified stationary sources; compliance with performance standards

As a condition for issuance of any permit required under this subchapter, the owner or operator of each new or modified stationary source which is required to obtain such a permit must show to the satisfaction of the permitting authority that the technological system of continuous emission reduction which is to be used at such source will enable it to comply with the standards of performance which are to apply to such source and that the construction or modification and operation of such source will be in compliance with all other requirements of this chapter.

(k) Environmental Protection Agency action on plan submissions

(1) Completeness of plan submissions

(A) Completeness criteria

Within 9 months after November 15, 1990, the Administrator shall promulgate minimum criteria that any plan submission must meet before the Administrator is required to act on such submission under this subsection. The criteria shall be limited to the information necessary to enable the Administrator to determine whether the plan submission complies with the provisions of this chapter.

(B) Completeness finding

Within 60 days of the Administrator's receipt of a plan or plan revision, but no later than 6 months after the date, if any, by which a State is required to submit the plan or revision, the Administrator shall determine whether the minimum criteria estab-

lished pursuant to subparagraph (A) have been met. Any plan or plan revision that a State submits to the Administrator, and that has not been determined by the Administrator (by the date 6 months after receipt of the submission) to have failed to meet the minimum criteria established pursuant to subparagraph (A), shall on that date be deemed by operation of law to meet such minimum criteria.

(C) Effect of finding of incompleteness

Where the Administrator determines that a plan submission (or part thereof) does not meet the minimum criteria established pursuant to subparagraph (A), the State shall be treated as not having made the submission (or, in the Administrator's discretion, part thereof).

(2) Deadline for action

Within 12 months of a determination by the Administrator (or a determination deemed by operation of law) under paragraph (1) that a State has submitted a plan or plan revision (or, in the Administrator's discretion, part thereof) that meets the minimum criteria established pursuant to paragraph (1), if applicable (or, if those criteria are not applicable, within 12 months of submission of the plan or revision), the Administrator shall act on the submission in accordance with paragraph (3).

(3) Full and partial approval and disapproval

In the case of any submittal on which the Administrator is required to act under paragraph (2), the Administrator shall approve such submittal as a whole if it meets all of the applicable requirements of this chapter. If a portion of the plan revision meets all the applicable requirements of this chapter, the Administrator may approve the plan revision in part and disapprove the plan revision in part. The plan revision shall not be treated as meeting the requirements of this chapter until the Administrator approves the entire plan revision as complying with the applicable requirements of this chapter.

(4) Conditional approval

The Administrator may approve a plan revision based on a commitment of the State to adopt specific enforceable measures by a date certain, but not later than 1 year after the date of approval of the plan revision. Any such conditional approval shall be treated as a disapproval if the State fails to comply with such commitment.

(5) Calls for plan revisions

Whenever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard, to mitigate adequately the interstate pollutant transport described in section 7506a of this title or section 7511c of this title, or to otherwise comply with any requirement of this chapter, the Administrator shall require the State to revise the plan as necessary to correct such inadequacies. The Administrator shall notify the State of the inadequacies, and may establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions. Such findings and notice shall be public. Any finding under this paragraph shall, to the extent the Administrator deems appropriate, subject the State to the requirements of this chapter to which the State was subject when it developed and submitted the plan for which such finding was made, except that the Administrator may adjust any dates applicable under such requirements as appropriate (except that the Administrator may not adjust any attainment date prescribed under part D, unless such date has elapsed).

(6) Corrections

Whenever the Administrator determines that the Administrator's action approving, disapproving, or promulgating any plan or plan revision (or part thereof), area designation, redesignation, classification, or reclassification was in error, the Administrator may in the same manner as the approval, disapproval, or promulgation revise such action as appropriate without requiring any further submission from the State. Such determination and the basis thereof shall be provided to the State and public.

(*l*) Plan revisions

Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.

(m) Sanctions

The Administrator may apply any of the sanctions listed in section 7509(b) of this title at any time (or at any time after) the Administrator makes a finding, disapproval, or determination under paragraphs (1) through (4), respectively, of section 7509(a) of this title in relation to any plan or plan item (as that term is defined by the Administrator) required under this chapter, with respect to any portion of the State the Administrator determines reasonable and appropriate, for the purpose of ensuring that the requirements of this chapter relating to such plan or plan item are met. The Administrator shall, by rule, establish criteria for exercising his authority under the previous sentence with respect to any deficiency referred to in section 7509(a) of this title to ensure that, during the 24-month period following the finding, disapproval, or determination referred to in section 7509(a) of this title, such sanctions are not applied on a statewide basis where one or more political subdivisions covered by the applicable implementation plan are principally responsible for such deficiency.

(n) Savings clauses

(1) Existing plan provisions

Any provision of any applicable implementation plan that was approved or promulgated by the Administrator pursuant to this section as

in effect before November 15, 1990, shall remain in effect as part of such applicable implementation plan, except to the extent that a revision to such provision is approved or promulgated by the Administrator pursuant to this chapter.

(2) Attainment dates

For any area not designated nonattainment, any plan or plan revision submitted or required to be submitted by a State—

(A) in response to the promulgation or revision of a national primary ambient air quality standard in effect on November 15, 1990, or

(B) in response to a finding of substantial inadequacy under subsection (a)(2) (as in effect immediately before November 15, 1990),

shall provide for attainment of the national primary ambient air quality standards within 3 years of November 15, 1990, or within 5 years of issuance of such finding of substantial inadequacy, whichever is later.

(3) Retention of construction moratorium in certain areas

In the case of an area to which, immediately before November 15, 1990, the prohibition on construction or modification of major stationary sources prescribed in subsection (a)(2)(I) (as in effect immediately before November 15, 1990) applied by virtue of a finding of the Administrator that the State containing such area had not submitted an implementation plan meeting the requirements of section 7502(b)(6) of this title (relating to establishment of a permit program) (as in effect immediately before November 15, 1990) or 7502(a)(1) of this title (to the extent such requirements relate to provision for attainment of the primary national ambient air quality standard for sulfur oxides by December 31, 1982) as in effect immediately before November 15, 1990, no major stationary source of the relevant air pollutant or pollutants shall be constructed or modified in such area until the Administrator finds that the plan for such area meets the applicable requirements of section 7502(c)(5) of this title (relating to permit programs) or subpart 5 of part D (relating to attainment of the primary national ambient air quality standard for sulfur dioxide), respectively.

(*o*) Indian tribes

If an Indian tribe submits an implementation plan to the Administrator pursuant to section 7601(d) of this title, the plan shall be reviewed in accordance with the provisions for review set forth in this section for State plans, except as otherwise provided by regulation promulgated pursuant to section 7601(d)(2) of this title. When such plan becomes effective in accordance with the regulations promulgated under section 7601(d) of this title, the plan shall become applicable to all areas (except as expressly provided otherwise in the plan) located within the exterior boundaries of the reservation, notwithstanding the issuance of any patent and including rights-of-way running through the reservation.

(p) Reports

Any State shall submit, according to such schedule as the Administrator may prescribe, such reports as the Administrator may require relating to emission reductions, vehicle miles traveled, congestion levels, and any other information the Administrator may deem necessary to assess the development[3] effectiveness, need for revision, or implementation of any plan or plan revision required under this chapter.

(July 14, 1955, ch. 360, title I, § 110, as added Pub. L. 91–604, § 4(a), Dec. 31, 1970, 84 Stat. 1680; amended Pub. L. 93–319, § 4, June 22, 1974, 88 Stat. 256; Pub. L. 95–95, title I, §§ 107, 108, Aug. 7, 1977, 91 Stat. 691, 693; Pub. L. 95–190, § 14(a)(1)–(6), Nov. 16, 1977, 91 Stat. 1399; Pub. L. 97–23, § 3, July 17, 1981, 95 Stat. 142; Pub. L. 101–549, title I, §§ 101(b)–(d), 102(h), 107(c), 108(d), title IV, § 412, Nov. 15, 1990, 104 Stat. 2404–2408, 2422, 2464, 2466, 2634.)

REFERENCES IN TEXT

The Energy Supply and Environmental Coordination Act of 1974, referred to in subsec. (a)(3)(B), is Pub. L. 93–319, June 22, 1974, 88 Stat. 246, as amended, which is classified principally to chapter 16C (§ 791 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 791 of Title 15 and Tables.

Section 7413 of this title, referred to in subsecs. (a)(3)(C), (6), (f)(5), (g)(3), and (i), was amended generally by Pub. L. 101–549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, subsecs. (d) and (e) of section 7413 no longer relates to final compliance orders and steel industry compliance extension, respectively.

Section 1857c–10 of this title, as in effect before August 7, 1977, referred to in subsecs. (f)(5) and (g)(3), was in the original "section 119, as in effect before the date of the enactment of this paragraph", meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, § 3, 88 Stat. 248, (which was classified to section 1857c–10 of this title) as in effect prior to the enactment of subsecs. (f)(5) and (g)(3) of this section by Pub. L. 95–95, § 107, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95–95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93–319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to section 7413(d)(5) of this title. Section 7413 of this title was subsequently amended generally by Pub. L. 101–549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, see note above. Section 117(b) of Pub. L. 95–95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

CODIFICATION

Section was formerly classified to section 1857c–5 of this title.

PRIOR PROVISIONS

A prior section 110 of act July 14, 1955, was renumbered section 117 by Pub. L. 91–604 and is classified to section 7417 of this title.

AMENDMENTS

1990—Subsec. (a)(1). Pub. L. 101–549, § 101(d)(8), substituted "3 years (or such shorter period as the Administrator may prescribe)" for "nine months" in two places.

Subsec. (a)(2). Pub. L. 101–549, § 101(b), amended par. (2) generally, substituting present provisions for provisions setting the time within which the Administrator was to approve or disapprove a plan or portion thereof

[3] So in original. Probably should be followed by a comma.

and listing the conditions under which the plan or portion thereof was to be approved after reasonable notice and hearing.

Subsec. (a)(3)(A). Pub. L. 101–549, §101(d)(1), struck out subpar. (A) which directed Administrator to approve any revision of an implementation plan if it met certain requirements and had been adopted by the State after reasonable notice and public hearings.

Subsec. (a)(3)(D). Pub. L. 101–549, §101(d)(1), struck out subpar. (D) which directed that certain implementation plans be revised to include comprehensive measures and requirements.

Subsec. (a)(4). Pub. L. 101–549, §101(d)(2), struck out par. (4) which set forth requirements for review procedure.

Subsec. (c)(1). Pub. L. 101–549, §102(h), amended par. (1) generally, substituting present provisions for provisions relating to preparation and publication of regulations setting forth an implementation plan, after opportunity for a hearing, upon failure of a State to make required submission or revision.

Subsec. (c)(2)(A). Pub. L. 101–549, §101(d)(3)(A), struck out subpar. (A) which required a study and report on necessity of parking surcharge, management of parking supply, and preferential bus/carpool lane regulations to achieve and maintain national primary ambient air quality standards.

Subsec. (c)(2)(C). Pub. L. 101–549, §101(d)(3)(B), struck out subpar. (C) which authorized suspension of certain regulations and requirements relating to management of parking supply.

Subsec. (c)(4). Pub. L. 101–549, §101(d)(3)(C), struck out par. (4) which permitted Governors to temporarily suspend measures in implementation plans relating to retrofits, gas rationing, and reduction of on-street parking.

Subsec. (c)(5)(B). Pub. L. 101–549, §101(d)(3)(D), struck out ''(including the written evidence required by part D),'' after ''include comprehensive measures''.

Subsec. (d). Pub. L. 101–549, §101(d)(4), struck out subsec. (d) which defined an applicable implementation plan for purposes of this chapter.

Subsec. (e). Pub. L. 101–549, §101(d)(5), struck out subsec. (e) which permitted an extension of time for attainment of a national primary ambient air quality standard.

Subsec. (f)(1). Pub. L. 101–549, §412, inserted ''or of any requirement under section 7651j of this title (concerning excess emissions penalties or offsets)'' in subpar. (A) and in last sentence.

Subsec. (g)(1). Pub. L. 101–549, §101(d)(6), substituted ''12 months of submission of the proposed plan revision'' for ''the required four month period'' in closing provisions.

Subsec. (h)(1). Pub. L. 101–549, §101(d)(7), substituted ''5 years after November 15, 1990, and every three years thereafter'' for ''one year after August 7, 1977, and annually thereafter'' and struck out at end ''Each such document shall be revised as frequently as practicable but not less often than annually.''

Subsecs. (k) to (n). Pub. L. 101–549, §101(c), added subsecs. (k) to (n).

Subsec. (*o*). Pub. L. 101–549, §107(c), added subsec. (*o*).

Subsec. (p). Pub. L. 101–549, §108(d), added subsec. (p).

1981—Subsec. (a)(3)(C). Pub. L. 97–23 inserted reference to extensions of compliance in decrees entered under section 7413(e) of this title (relating to iron- and steel-producing operations).

1977—Subsec. (a)(2)(A). Pub. L. 95–95, §108(a)(1), substituted ''(A) except as may be provided in subparagraph (I)(i) in the case of a plan'' for ''(A)(i) in the case of a plan''.

Subsec. (a)(2)(B). Pub. L. 95–95, §108(a)(2), substituted ''transportation controls, air quality maintenance plans, and preconstruction review of direct sources of air pollution as provided in subparagraph (D)'' for ''land use and transportation controls''.

Subsec. (a)(2)(D). Pub. L. 95–95, §108(a)(3), substituted ''it includes a program to provide for the enforcement of emission limitations and regulation of the modification, construction, and operation of any stationary source, including a permit program as required in parts C and D and a permit or equivalent program for any major emitting facility, within such region as necessary to assure (i) that national ambient air quality standards are achieved and maintained, and (ii) a procedure'' for ''it includes a procedure''.

Subsec. (a)(2)(E). Pub. L. 95–95, §108(a)(4), substituted ''it contains adequate provisions (i) prohibiting any stationary source within the State from emitting any air pollutant in amounts which will (I) prevent attainment or maintenance by any other State of any such national primary or secondary ambient air quality standard, or (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility, and (ii) insuring compliance with the requirements of section 7426 of this title, relating to interstate pollution abatement'' for ''it contains adequate provisions for intergovernmental cooperation, including measures necessary to insure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region outside of such State or in any other air quality control region''.

Subsec. (a)(2)(F). Pub. L. 95–95, §108(a)(5), added cl. (vi).

Subsec. (a)(2)(H). Pub. L. 95–190, §14(a)(1), substituted ''1977;'' for ''1977''.

Pub. L. 95–95, §108(a)(6), inserted ''except as provided in paragraph (3)(C),'' after ''or (ii)'' and ''or to otherwise comply with any additional requirements established under the Clean Air Act Amendments of 1977'' after ''to achieve the national ambient air quality primary or secondary standard which it implements''.

Subsec. (a)(2)(I). Pub. L. 95–95, §108(b), added subpar. (I).

Subsec. (a)(2)(J). Pub. L. 95–190, §14(a)(2), substituted ''; and'' for '', and''.

Pub. L. 95–95, §108(b), added subpar. (J).

Subsec. (a)(2)(K). Pub. L. 95–95, §108(b) added subpar. (K).

Subsec. (a)(3)(C). Pub. L. 95–95, §108(c), added subpar. (C).

Subsec. (a)(3)(D). Pub. L. 95–190, §14(a)(4), added subpar. (D).

Subsec. (a)(5). Pub. L. 95–95, §108(e), added par. (5).

Subsec. (a)(5)(D). Pub. L. 95–190, §14(a)(3), struck out ''preconstruction or premodification'' before ''review''.

Subsec. (a)(6). Pub. L. 95–95, §108(e), added par. (6).

Subsec. (c)(1). Pub. L. 95–95, §108(d)(1), (2), substituted ''plan which meets the requirements of this section'' for ''plan for any national ambient air quality primary or secondary standard within the time prescribed'' in subpar. (A) and, in provisions following subpar. (C), directed that any portion of a plan relating to any measure described in first sentence of 7421 of this title (relating to consultation) or the consultation process required under such section 7421 of this title not be required to be promulgated before the date eight months after such date required for submission.

Subsec. (c)(3) to (5). Pub. L. 95–95, §108(d)(3), added pars. (3) to (5).

Subsec. (d). Pub. L. 95–95, §108(f), substituted ''and which implements the requirements of this section'' for ''and which implements a national primary or secondary ambient air quality standard in a State''.

Subsec. (f). Pub. L. 95–95, §107(a), substituted provisions relating to the handling of national or regional energy emergencies for provisions relating to the postponement of compliance by stationary sources or classes of moving sources with any requirement of applicable implementation plans.

Subsec. (g). Pub. L. 95–95, §108(g), added subsec. (g) relating to publication of comprehensive document.

Pub. L. 95–95, §107(b), added subsec. (g) relating to Governor's authority to issue temporary emergency suspensions.

Subsec. (h). Pub. L. 95–190, §14(a)(5), redesignated subsec. (g), added by Pub. L. 95–95, §108(g), as (h). Former subsec. (h) redesignated (i).

Subsec. (i). Pub. L. 95–190, §14(a)(5), redesignated subsec. (h), added by Pub. L. 95–95, §108(g), as (i). Former subsec. (i) redesignated (j) and amended.

Subsec. (j). Pub. L. 95–190 §14(a)(5), (6), redesignated subsec. (i), added by Pub. L. 95–95, §108(g), as (j) and in subsec. (j) as so redesignated, substituted ''will enable such source'' for ''at such source will enable it''.

1974—Subsec. (a)(3). Pub. L. 93–319, §4(a), designated existing provisions as subpar. (A) and added subpar. (B).

Subsec. (c). Pub. L. 93–319, §4(b), designated existing provisions as par. (1) and existing pars. (1), (2), and (3) as subpars. (A), (B), and (C), respectively, of such redesignated par. (1), and added par. (2).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF IMPLEMENTATION PLANS APPROVED AND IN EFFECT PRIOR TO AUG. 7, 1977

Nothing in the Clean Air Act Amendments of 1977 [Pub. L. 95–95] to affect any requirement of an approved implementation plan under this section or any other provision in effect under this chapter before Aug. 7, 1977, until modified or rescinded in accordance with this chapter as amended by the Clean Air Act Amendments of 1977, see section 406(c) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

SAVINGS PROVISION

Pub. L. 91–604, §16, Dec. 31, 1970, 84 Stat. 1713, provided that:

''(a)(1) Any implementation plan adopted by any State and submitted to the Secretary of Health, Education, and Welfare, or to the Administrator pursuant to the Clean Air Act [this chapter] prior to enactment of this Act [Dec. 31, 1970] may be approved under section 110 of the Clean Air Act [this section] (as amended by this Act) [Pub. L. 91–604] and shall remain in effect, unless the Administrator determines that such implementation plan, or any portion thereof, is not consistent with applicable requirements of the Clean Air Act [this chapter] (as amended by this Act) and will not provide for the attainment of national primary ambient air quality standards in the time required by such Act. If the Administrator so determines, he shall, within 90 days after promulgation of any national ambient air quality standards pursuant to section 109(a) of the Clean Air Act [section 7409(a) of this title], notify the State and specify in what respects changes are needed to meet the additional requirements of such Act, including requirements to implement national secondary ambient air quality standards. If such changes are not adopted by the State after public hearings and within six months after such notification, the Administrator shall promulgate such changes pursuant to section 110(c) of such Act [subsec. (c) of this section].

''(2) The amendments made by section 4(b) [amending sections 7403 and 7415 of this title] shall not be construed as repealing or modifying the powers of the Administrator with respect to any conference convened under section 108(d) of the Clean Air Act [section 7415 of this title] before the date of enactment of this Act [Dec. 31, 1970].

''(b) Regulations or standards issued under this title II of the Clean Air Act [subchapter II of this chapter] prior to the enactment of this Act [Dec. 31, 1970] shall continue in effect until revised by the Administrator consistent with the purposes of such Act [this chapter].''

FEDERAL ENERGY ADMINISTRATOR

''Federal Energy Administrator'', for purposes of this chapter, to mean Administrator of Federal Energy Administration established by Pub. L. 93–275, May 7, 1974, 88 Stat. 97, which is classified to section 761 et seq. of Title 15, Commerce and Trade, but with the term to mean any officer of the United States designated as such by the President until Federal Energy Administrator takes office and after Federal Energy Administration ceases to exist, see section 798 of Title 15, Commerce and Trade.

Federal Energy Administration terminated and functions vested by law in Administrator thereof transferred to Secretary of Energy (unless otherwise specifically provided) by sections 7151(a) and 7293 of this title.

§ 7411. Standards of performance for new stationary sources

(a) Definitions

For purposes of this section:

(1) The term ''standard of performance'' means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(2) The term ''new source'' means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

(3) The term ''stationary source'' means any building, structure, facility, or installation which emits or may emit any air pollutant. Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines.

(4) The term ''modification'' means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emit-

ted by such source or which results in the emission of any air pollutant not previously emitted.

(5) The term ''owner or operator'' means any person who owns, leases, operates, controls, or supervises a stationary source.

(6) The term ''existing source'' means any stationary source other than a new source.

(7) The term ''technological system of continuous emission reduction'' means—

(A) a technological process for production or operation by any source which is inherently low-polluting or nonpolluting, or

(B) a technological system for continuous reduction of the pollution generated by a source before such pollution is emitted into the ambient air, including precombustion cleaning or treatment of fuels.

(8) A conversion to coal (A) by reason of an order under section 2(a) of the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C. 792(a)] or any amendment thereto, or any subsequent enactment which supersedes such Act [15 U.S.C. 791 et seq.], or (B) which qualifies under section 7413(d)(5)(A)(ii)[1] of this title, shall not be deemed to be a modification for purposes of paragraphs (2) and (4) of this subsection.

(b) List of categories of stationary sources; standards of performance; information on pollution control techniques; sources owned or operated by United States; particular systems; revised standards

(1)(A) The Administrator shall, within 90 days after December 31, 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.

(B) Within one year after the inclusion of a category of stationary sources in a list under subparagraph (A), the Administrator shall publish proposed regulations, establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one year after such publication, such standards with such modifications as he deems appropriate. The Administrator shall, at least every 8 years, review and, if appropriate, revise such standards following the procedure required by this subsection for promulgation of such standards. Notwithstanding the requirements of the previous sentence, the Administrator need not review any such standard if the Administrator determines that such review is not appropriate in light of readily available information on the efficacy of such standard. Standards of performance or revisions thereof shall become effective upon promulgation. When implementation and enforcement of any requirement of this chapter indicate that emission limitations and percent reductions beyond those required by the standards promulgated under this section are achieved in practice, the Administrator shall, when revising standards promulgated under this section, consider the emission limitations and percent reductions achieved in practice.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards.

(3) The Administrator shall, from time to time, issue information on pollution control techniques for categories of new sources and air pollutants subject to the provisions of this section.

(4) The provisions of this section shall apply to any new source owned or operated by the United States.

(5) Except as otherwise authorized under subsection (h), nothing in this section shall be construed to require, or to authorize the Administrator to require, any new or modified source to install and operate any particular technological system of continuous emission reduction to comply with any new source standard of performance.

(6) The revised standards of performance required by enactment of subsection (a)(1)(A)(i) and (ii)[1] shall be promulgated not later than one year after August 7, 1977. Any new or modified fossil fuel fired stationary source which commences construction prior to the date of publication of the proposed revised standards shall not be required to comply with such revised standards.

(c) State implementation and enforcement of standards of performance

(1) Each State may develop and submit to the Administrator a procedure for implementing and enforcing standards of performance for new sources located in such State. If the Administrator finds the State procedure is adequate, he shall delegate to such State any authority he has under this chapter to implement and enforce such standards.

(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable standard of performance under this section.

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining use-

[1] See References in Text note below.

ful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

(e) Prohibited acts

After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

(f) New source standards of performance

(1) For those categories of major stationary sources that the Administrator listed under subsection (b)(1)(A) before November 15, 1990, and for which regulations had not been proposed by the Administrator by November 15, 1990, the Administrator shall—

(A) propose regulations establishing standards of performance for at least 25 percent of such categories of sources within 2 years after November 15, 1990;

(B) propose regulations establishing standards of performance for at least 50 percent of such categories of sources within 4 years after November 15, 1990; and

(C) propose regulations for the remaining categories of sources within 6 years after November 15, 1990.

(2) In determining priorities for promulgating standards for categories of major stationary sources for the purpose of paragraph (1), the Administrator shall consider—

(A) the quantity of air pollutant emissions which each such category will emit, or will be designed to emit;

(B) the extent to which each such pollutant may reasonably be anticipated to endanger public health or welfare; and

(C) the mobility and competitive nature of each such category of sources and the consequent need for nationally applicable new source standards of performance.

(3) Before promulgating any regulations under this subsection or listing any category of major stationary sources as required under this subsection, the Administrator shall consult with appropriate representatives of the Governors and of State air pollution control agencies.

(g) Revision of regulations

(1) Upon application by the Governor of a State showing that the Administrator has failed to specify in regulations under subsection (f)(1) any category of major stationary sources required to be specified under such regulations, the Administrator shall revise such regulations to specify any such category.

(2) Upon application of the Governor of a State, showing that any category of stationary sources which is not included in the list under subsection (b)(1)(A) contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare (notwithstanding that such category is not a category of major stationary sources), the Administrator shall revise such regulations to specify such category of stationary sources.

(3) Upon application of the Governor of a State showing that the Administrator has failed to apply properly the criteria required to be considered under subsection (f)(2), the Administrator shall revise the list under subsection (b)(1)(A) to apply properly such criteria.

(4) Upon application of the Governor of a State showing that—

(A) a new, innovative, or improved technology or process which achieves greater continuous emission reduction has been adequately demonstrated for any category of stationary sources, and

(B) as a result of such technology or process, the new source standard of performance in effect under this section for such category no longer reflects the greatest degree of emission limitation achievable through application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impact and energy requirements) has been adequately demonstrated,

the Administrator shall revise such standard of performance for such category accordingly.

(5) Unless later deadlines for action of the Administrator are otherwise prescribed under this section, the Administrator shall, not later than three months following the date of receipt of any application by a Governor of a State, either—

(A) find that such application does not contain the requisite showing and deny such application, or

(B) grant such application and take the action required under this subsection.

(6) Before taking any action required by subsection (f) or by this subsection, the Administrator shall provide notice and opportunity for public hearing.

(h) Design, equipment, work practice, or operational standard; alternative emission limitation

(1) For purposes of this section, if in the judgment of the Administrator, it is not feasible to prescribe or enforce a standard of performance, he may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which reflects the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impact

and energy requirements) the Administrator determines has been adequately demonstrated. In the event the Administrator promulgates a design or equipment standard under this subsection, he shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) For the purpose of this subsection, the phrase ''not feasible to prescribe or enforce a standard of performance'' means any situation in which the Administrator determines that (A) a pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State, or local law, or (B) the application of measurement methodology to a particular class of sources is not practicable due to technological or economic limitations.

(3) If after notice and opportunity for public hearing, any person establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such air pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Any standard promulgated under paragraph (1) shall be promulgated in terms of standard of performance whenever it becomes feasible to promulgate and enforce such standard in such terms.

(5) Any design, equipment, work practice, or operational standard, or any combination thereof, described in this subsection shall be treated as a standard of performance for purposes of the provisions of this chapter (other than the provisions of subsection (a) and this subsection).

(i) Country elevators

Any regulations promulgated by the Administrator under this section applicable to grain elevators shall not apply to country elevators (as defined by the Administrator) which have a storage capacity of less than two million five hundred thousand bushels.

(j) Innovative technological systems of continuous emission reduction

(1)(A) Any person proposing to own or operate a new source may request the Administrator for one or more waivers from the requirements of this section for such source or any portion thereof with respect to any air pollutant to encourage the use of an innovative technological system or systems of continuous emission reduction. The Administrator may, with the consent of the Governor of the State in which the source is to be located, grant a waiver under this paragraph, if the Administrator determines after notice and opportunity for public hearing, that—

(i) the proposed system or systems have not been adequately demonstrated,

(ii) the proposed system or systems will operate effectively and there is a substantial likelihood that such system or systems will achieve greater continuous emission reduction than that required to be achieved under the standards of performance which would otherwise apply, or achieve at least an equivalent reduction at lower cost in terms of energy, economic, or nonair quality environmental impact,

(iii) the owner or operator of the proposed source has demonstrated to the satisfaction of the Administrator that the proposed system will not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation, function, or malfunction, and

(iv) the granting of such waiver is consistent with the requirements of subparagraph (C).

In making any determination under clause (ii), the Administrator shall take into account any previous failure of such system or systems to operate effectively or to meet any requirement of the new source performance standards. In determining whether an unreasonable risk exists under clause (iii), the Administrator shall consider, among other factors, whether and to what extent the use of the proposed technological system will cause, increase, reduce, or eliminate emissions of any unregulated pollutants; available methods for reducing or eliminating any risk to public health, welfare, or safety which may be associated with the use of such system; and the availability of other technological systems which may be used to conform to standards under this section without causing or contributing to such unreasonable risk. The Administrator may conduct such tests and may require the owner or operator of the proposed source to conduct such tests and provide such information as is necessary to carry out clause (iii) of this subparagraph. Such requirements shall include a requirement for prompt reporting of the emission of any unregulated pollutant from a system if such pollutant was not emitted, or was emitted in significantly lesser amounts without use of such system.

(B) A waiver under this paragraph shall be granted on such terms and conditions as the Administrator determines to be necessary to assure—

(i) emissions from the source will not prevent attainment and maintenance of any national ambient air quality standards, and

(ii) proper functioning of the technological system or systems authorized.

Any such term or condition shall be treated as a standard of performance for the purposes of subsection (e) of this section and section 7413 of this title.

(C) The number of waivers granted under this paragraph with respect to a proposed technological system of continuous emission reduction shall not exceed such number as the Administrator finds necessary to ascertain whether or not such system will achieve the conditions specified in clauses (ii) and (iii) of subparagraph (A).

(D) A waiver under this paragraph shall extend to the sooner of—

(i) the date determined by the Administrator, after consultation with the owner or operator of the source, taking into consideration the design, installation, and capital cost

of the technological system or systems being used, or

(ii) the date on which the Administrator determines that such system has failed to—

(I) achieve at least an equivalent continuous emission reduction to that required to be achieved under the standards of performance which would otherwise apply, or

(II) comply with the condition specified in paragraph (1)(A)(iii),

and that such failure cannot be corrected.

(E) In carrying out subparagraph (D)(i), the Administrator shall not permit any waiver for a source or portion thereof to extend beyond the date—

(i) seven years after the date on which any waiver is granted to such source or portion thereof, or

(ii) four years after the date on which such source or portion thereof commences operation,

whichever is earlier.

(F) No waiver under this subsection shall apply to any portion of a source other than the portion on which the innovative technological system or systems of continuous emission reduction is used.

(2)(A) If a waiver under paragraph (1) is terminated under clause (ii) of paragraph (1)(D), the Administrator shall grant an extension of the requirements of this section for such source for such minimum period as may be necessary to comply with the applicable standard of performance under this section. Such period shall not extend beyond the date three years from the time such waiver is terminated.

(B) An extension granted under this paragraph shall set forth emission limits and a compliance schedule containing increments of progress which require compliance with the applicable standards of performance as expeditiously as practicable and include such measures as are necessary and practicable in the interim to minimize emissions. Such schedule shall be treated as a standard of performance for purposes of subsection (e) of this section and section 7413 of this title.

(July 14, 1955, ch. 360, title I, §111, as added Pub. L. 91–604, §4(a), Dec. 31, 1970, 84 Stat. 1683; amended Pub. L. 92–157, title III, §302(f), Nov. 18, 1971, 85 Stat. 464; Pub. L. 95–95, title I, §109(a)–(d)(1), (e), (f), title IV, §401(b), Aug. 7, 1977, 91 Stat. 697–703, 791; Pub. L. 95–190, §14(a)(7)–(9), Nov. 16, 1977, 91 Stat. 1399; Pub. L. 95–623, §13(a), Nov. 9, 1978, 92 Stat. 3457; Pub. L. 101–549, title I, §108(e)–(g), title III, §302(a), (b), title IV, §403(a), Nov. 15, 1990, 104 Stat. 2467, 2574, 2631.)

References in Text

Such Act, referred to in subsec. (a)(8), means Pub. L. 93–319, June 22, 1974, 88 Stat. 246, as amended, known as the Energy Supply and Environmental Coordination Act of 1974, which is classified principally to chapter 16C (§791 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 791 of Title 15 and Tables.

Section 7413 of this title, referred to in subsec. (a)(8), was amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, subsec. (d) of section 7413 no longer relates to final compliance orders.

Subsection (a)(1) of this section, referred to in subsec. (b)(6), was amended generally by Pub. L. 101–549, title VII, §403(a), Nov. 15, 1990, 104 Stat. 2631, and, as so amended, no longer contains subpars.

Codification

Section was formerly classified to section 1857c–6 of this title.

Prior Provisions

A prior section 111 of act July 14, 1955, was renumbered section 118 by Pub. L. 91–604 and is classified to section 7418 of this title.

Amendments

1990—Subsec. (a)(1). Pub. L. 101–549, §403(a), amended par. (1) generally, substituting provisions defining ''standard of performance'' with respect to any air pollutant for provisions defining such term with respect to subsec. (b) fossil fuel fired and other stationary sources and subsec. (d) particular sources.

Subsec. (a)(3). Pub. L. 101–549, §108(f), inserted at end ''Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines.''

Subsec. (b)(1)(B). Pub. L. 101–549, §108(e)(1), substituted ''Within one year'' for ''Within 120 days'', ''within one year'' for ''within 90 days'', and ''every 8 years'' for ''every four years'', inserted before last sentence ''Notwithstanding the requirements of the previous sentence, the Administrator need not review any such standard if the Administrator determines that such review is not appropriate in light of readily available information on the efficacy of such standard.'', and inserted at end ''When implementation and enforcement of any requirement of this chapter indicate that emission limitations and percent reductions beyond those required by the standards promulgated under this section are achieved in practice, the Administrator shall, when revising standards promulgated under this section, consider the emission limitations and percent reductions achieved in practice.''

Subsec. (d)(1)(A)(i). Pub. L. 101–549, §302(a), which directed the substitution of ''7412(b)'' for ''7412(b)(1)(A)'', could not be executed, because of the prior amendment by Pub. L. 101–549, §108(g), see below.

Pub. L. 101–549, §108(g), substituted ''or emitted from a source category which is regulated under section 7412 of this title'' for ''or 7412(b)(1)(A)''.

Subsec. (f)(1). Pub. L. 101–549, §108(e)(2), amended par. (1) generally, substituting present provisions for provisions requiring the Administrator to promulgate regulations listing the categories of major stationary sources not on the required list by Aug. 7, 1977, and regulations establishing standards of performance for such categories.

Subsec. (g)(5) to (8). Pub. L. 101–549, §302(b), redesignated par. (7) as (5) and struck out ''or section 7412 of this title'' after ''this section'', redesignated par. (8) as (6), and struck out former pars. (5) and (6) which read as follows:

''(5) Upon application by the Governor of a State showing that the Administrator has failed to list any air pollutant which causes, or contributes to, air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness as a hazardous air pollutant under section 7412 of this title the Administrator shall revise the list of hazardous air pollutants under such section to include such pollutant.

''(6) Upon application by the Governor of a State showing that any category of stationary sources of a hazardous air pollutant listed under section 7412 of this title is not subject to emission standards under such section, the Administrator shall propose and promulgate such emission standards applicable to such category of sources.''

1978—Subsecs. (d)(1)(A)(ii), (g)(4)(B). Pub. L. 95–623, §13(a)(2), substituted ''under this section'' for ''under subsection (b) of this section''.

Subsec. (h)(5). Pub. L. 95–623, §13(a)(1), added par. (5).

Subsec. (j). Pub. L. 95–623, §13(a)(3), substituted in pars. (1)(A) and (2)(A) ''standards under this section'' and ''under this section'' for ''standards under subsection (b) of this section'' and ''under subsection (b) of this section'', respectively.

1977—Subsec. (a)(1). Pub. L. 95–95, §109(c)(1)(A), added subpars. (A), (B), and (C), substituted ''For the purpose of subparagraphs (A)(i) and (ii) and (B), a standard of performance shall reflect'' for ''a standard for emissions of air pollutants which reflects'', ''and the percentage reduction achievable'' for ''achievable'', and ''technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environment impact and energy requirements)'' for ''system of emission reduction which (taking into account the cost of achieving such reduction)'' in existing provisions, and inserted provision that, for the purpose of subparagraph (1)(A)(ii), any cleaning of the fuel or reduction in the pollution characteristics of the fuel after extraction and prior to combustion may be credited, as determined under regulations promulgated by the Administrator, to a source which burns such fuel.

Subsec. (a)(7). Pub. L. 95–95, §109(c)(1)(B), added par. (7) defining ''technological system of continuous emission reduction''.

Pub. L. 95–95, §109(f), added par. (7) directing that under certain circumstances a conversion to coal not be deemed a modification for purposes of pars. (2) and (4).

Subsec. (a)(7), (8). Pub. L. 95–190, §14(a)(7), redesignated second par. (7) as (8).

Subsec. (b)(1)(A). Pub. L. 95–95, §401(b), substituted ''such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger'' for ''such list if he determines it may contribute significantly to air pollution which causes or contributes to the endangerment of''.

Subsec. (b)(1)(B). Pub. L. 95–95, §109(c)(2), substituted ''shall, at least every four years, review and, if appropriate,'' for ''may, from time to time,''.

Subsec. (b)(5), (6). Pub. L. 95–95, §109(c)(3), added pars. (5) and (6).

Subsec. (c)(1). Pub. L. 95–95, §109(d)(1), struck out ''(except with respect to new sources owned or operated by the United States)'' after ''implement and enforce such standards''.

Subsec. (d)(1). Pub. L. 95–95, §109(b)(1), substituted ''standards of performance'' for ''emission standards'' and inserted provisions directing that regulations of the Administrator permit the State, in applying a standard of performance to any particular source under a submitted plan, to take into consideration, among other factors, the remaining useful life of the existing source to which the standard applies.

Subsec. (d)(2). Pub. L. 95–95, §109(b)(2), provided that, in promulgating a standard of performance under a plan, the Administrator take into consideration, among other factors, the remaining useful lives of the sources in the category of sources to which the standard applies.

Subsecs. (f) to (i). Pub. L. 95–95, §109(a), added subsecs. (f) to (i).

Subsecs. (j), (k). Pub. L. 95–190, §14(a)(8), (9), redesignated subsec. (k) as (j) and, as so redesignated, substituted ''(B)'' for ''(8)'' as designation for second subpar. in par. (2). Former subsec. (j), added by Pub. L. 95–95, §109(e), which related to compliance with applicable standards of performance, was struck out.

Pub. L. 95–95, §109(e), added subsec. (k).

1971—Subsec. (b)(1)(B). Pub. L. 92–157 substituted in first sentence ''publish proposed'' for ''propose''.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

REGULATIONS

Pub. L. 101–549, title IV, §403(b), (c), Nov. 15, 1990, 104 Stat. 2631, provided that:

''(b) REVISED REGULATIONS.—Not later than three years after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the Administrator shall promulgate revised regulations for standards of performance for new fossil fuel fired electric utility units commencing construction after the date on which such regulations are proposed that, at a minimum, require any source subject to such revised standards to emit sulfur dioxide at a rate not greater than would have resulted from compliance by such source with the applicable standards of performance under this section [amending sections 7411 and 7479 of this title] prior to such revision.

''(c) APPLICABILITY.—The provisions of subsections (a) [amending this section] and (b) apply only so long as the provisions of section 403(e) of the Clean Air Act [42 U.S.C. 7651b(e)] remain in effect.''

TRANSFER OF FUNCTIONS

Enforcement functions of Administrator or other official in Environmental Protection Agency related to compliance with new source performance standards under this section with respect to pre-construction, construction, and initial operation of transportation system for Canadian and Alaskan natural gas transferred to Federal Inspector, Office of Federal Inspector for the Alaska Natural Gas Transportation System, until first anniversary of date of initial operation of Alaska Natural Gas Transportation System, see Reorg. Plan No. 1 of 1979, eff. July 1, 1979, §§102(a), 203(a), 44 F.R. 33663, 33666, 93 Stat. 1373, 1376, set out in the Appendix to Title 5, Government Organization and Employees. Office of Federal Inspector for the Alaska Natural Gas Transportation System abolished and functions and authority vested in Inspector transferred to Secretary of Energy by section 3012(b) of Pub. L. 102–486, set out as an Abolition of Office of Federal Inspector note under section 719e of Title 15, Commerce and Trade. Functions and authority vested in Secretary of Energy subsequently transferred to Federal Coordinator for Alaska Natural Gas Transportation Projects by section 720d(f) of Title 15.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

POWER SECTOR CARBON POLLUTION STANDARDS

Memorandum of President of the United States, June 25, 2013, 78 F.R. 39535, which related to carbon pollution

standards for power plants, was revoked by Ex. Ord. No. 13783, § 3(a)(ii), Mar. 28, 2017, 82 F.R. 16094, set out as a note under section 13201 of this title.

§ 7412. Hazardous air pollutants

(a) Definitions

For purposes of this section, except subsection (r)—

(1) Major source

The term ''major source'' means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The Administrator may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source than that specified in the previous sentence, on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

(2) Area source

The term ''area source'' means any stationary source of hazardous air pollutants that is not a major source. For purposes of this section, the term ''area source'' shall not include motor vehicles or nonroad vehicles subject to regulation under subchapter II.

(3) Stationary source

The term ''stationary source'' shall have the same meaning as such term has under section 7411(a) of this title.

(4) New source

The term ''new source'' means a stationary source the construction or reconstruction of which is commenced after the Administrator first proposes regulations under this section establishing an emission standard applicable to such source.

(5) Modification

The term ''modification'' means any physical change in, or change in the method of operation of, a major source which increases the actual emissions of any hazardous air pollutant emitted by such source by more than a de minimis amount or which results in the emission of any hazardous air pollutant not previously emitted by more than a de minimis amount.

(6) Hazardous air pollutant

The term ''hazardous air pollutant'' means any air pollutant listed pursuant to subsection (b).

(7) Adverse environmental effect

The term ''adverse environmental effect'' means any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.

(8) Electric utility steam generating unit

The term ''electric utility steam generating unit'' means any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale shall be considered an electric utility steam generating unit.

(9) Owner or operator

The term ''owner or operator'' means any person who owns, leases, operates, controls, or supervises a stationary source.

(10) Existing source

The term ''existing source'' means any stationary source other than a new source.

(11) Carcinogenic effect

Unless revised, the term ''carcinogenic effect'' shall have the meaning provided by the Administrator under Guidelines for Carcinogenic Risk Assessment as of the date of enactment.[1] Any revisions in the existing Guidelines shall be subject to notice and opportunity for comment.

(b) List of pollutants

(1) Initial list

The Congress establishes for purposes of this section a list of hazardous air pollutants as follows:

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine

[1] See References in Text note below.

CAS number	Chemical name
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3′-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4′-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes
0	Antimony Compounds
0	Arsenic Compounds (inorganic including arsine)
0	Beryllium Compounds
0	Cadmium Compounds
0	Chromium Compounds
0	Cobalt Compounds
0	Coke Oven Emissions
0	Cyanide Compounds[1]
0	Glycol ethers[2]
0	Lead Compounds
0	Manganese Compounds
0	Mercury Compounds
0	Fine mineral fibers[3]
0	Nickel Compounds
0	Polycylic Organic Matter[4]

CAS number	Chemical name
0	Radionuclides (including radon)[5]
0	Selenium Compounds

NOTE: For all listings above which contain the word ''compounds'' and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

[1] X′CN where X = H′ or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$.

[2] Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R–(OCH2CH2)_n–OR′$ where

n = 1, 2, or 3

R = alkyl or aryl groups

R′ = R, H, or groups which, when removed, yield glycol ethers with the structure: $R–(OCH2CH)_n–OH$. Polymers are excluded from the glycol category.

[3] Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[4] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[5] A type of atom which spontaneously undergoes radioactive decay.

(2) Revision of the list

The Administrator shall periodically review the list established by this subsection and publish the results thereof and, where appropriate, revise such list by rule, adding pollutants which present, or may present, through inhalation or other routes of exposure, a threat of adverse human health effects (including, but not limited to, substances which are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic) or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise, but not including releases subject to regulation under subsection (r) as a result of emissions to the air. No air pollutant which is listed under section 7408(a) of this title may be added to the list under this section, except that the prohibition of this sentence shall not apply to any pollutant which independently meets the listing criteria of this paragraph and is a precursor to a pollutant which is listed under section 7408(a) of this title or to any pollutant which is in a class of pollutants listed under such section. No substance, practice, process or activity regulated under subchapter VI of this chapter shall be subject to regulation under this section solely due to its adverse effects on the environment.

(3) Petitions to modify the list

(A) Beginning at any time after 6 months after November 15, 1990, any person may petition the Administrator to modify the list of hazardous air pollutants under this subsection by adding or deleting a substance or, in case of listed pollutants without CAS numbers (other than coke oven emissions, mineral fibers, or polycyclic organic matter) removing certain unique substances. Within 18 months after receipt of a petition, the Administrator shall either grant or deny the petition by publishing a written explanation of the reasons for the Administrator's decision. Any such petition shall include a showing by the petitioner that there is adequate data on the health or environmental defects[2] of the pollutant or other evidence adequate to support the petition. The Administrator may not deny a petition solely on the basis of inadequate resources or time for review.

(B) The Administrator shall add a substance to the list upon a showing by the petitioner or on the Administrator's own determination that the substance is an air pollutant and that emissions, ambient concentrations, bioaccumulation or deposition of the substance are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects.

(C) The Administrator shall delete a substance from the list upon a showing by the petitioner or on the Administrator's own determination that there is adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation or deposition of the substance may not reasonably be anticipated to cause any adverse effects to the human health or adverse environmental effects.

(D) The Administrator shall delete one or more unique chemical substances that contain a listed hazardous air pollutant not having a CAS number (other than coke oven emissions, mineral fibers, or polycyclic organic matter) upon a showing by the petitioner or on the Administrator's own determination that such unique chemical substances that contain the named chemical of such listed hazardous air pollutant meet the deletion requirements of subparagraph (C). The Administrator must grant or deny a deletion petition prior to promulgating any emission standards pursuant to subsection (d) applicable to any source category or subcategory of a listed hazardous air pollutant without a CAS number listed under subsection (b) for which a deletion petition has been filed within 12 months of November 15, 1990.

(4) Further information

If the Administrator determines that information on the health or environmental effects of a substance is not sufficient to make a determination required by this subsection, the Administrator may use any authority available to the Administrator to acquire such information.

(5) Test methods

The Administrator may establish, by rule, test measures and other analytic procedures for monitoring and measuring emissions, ambient concentrations, deposition, and bioaccumulation of hazardous air pollutants.

(6) Prevention of significant deterioration

The provisions of part C (prevention of significant deterioration) shall not apply to pollutants listed under this section.

[2] So in original. Probably should be ''effects''.

(7) Lead

The Administrator may not list elemental lead as a hazardous air pollutant under this subsection.

(c) List of source categories

(1) In general

Not later than 12 months after November 15, 1990, the Administrator shall publish, and shall from time to time, but no less often than every 8 years, revise, if appropriate, in response to public comment or new information, a list of all categories and subcategories of major sources and area sources (listed under paragraph (3)) of the air pollutants listed pursuant to subsection (b). To the extent practicable, the categories and subcategories listed under this subsection shall be consistent with the list of source categories established pursuant to section 7411 of this title and part C. Nothing in the preceding sentence limits the Administrator's authority to establish subcategories under this section, as appropriate.

(2) Requirement for emissions standards

For the categories and subcategories the Administrator lists, the Administrator shall establish emissions standards under subsection (d), according to the schedule in this subsection and subsection (e).

(3) Area sources

The Administrator shall list under this subsection each category or subcategory of area sources which the Administrator finds presents a threat of adverse effects to human health or the environment (by such sources individually or in the aggregate) warranting regulation under this section. The Administrator shall, not later than 5 years after November 15, 1990, and pursuant to subsection (k)(3)(B), list, based on actual or estimated aggregate emissions of a listed pollutant or pollutants, sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the area source emissions of the 30 hazardous air pollutants that present the greatest threat to public health in the largest number of urban areas are subject to regulation under this section. Such regulations shall be promulgated not later than 10 years after November 15, 1990.

(4) Previously regulated categories

The Administrator may, in the Administrator's discretion, list any category or subcategory of sources previously regulated under this section as in effect before November 15, 1990.

(5) Additional categories

In addition to those categories and subcategories of sources listed for regulation pursuant to paragraphs (1) and (3), the Administrator may at any time list additional categories and subcategories of sources of hazardous air pollutants according to the same criteria for listing applicable under such paragraphs. In the case of source categories and subcategories listed after publication of the initial list required under paragraph (1) or (3), emission standards under subsection (d) for the category or subcategory shall be promulgated within 10 years after November 15, 1990, or within 2 years after the date on which such category or subcategory is listed, whichever is later.

(6) Specific pollutants

With respect to alkylated lead compounds, polycyclic organic matter, hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans and 2,3,7,8-tetrachlorodibenzo-p-dioxin, the Administrator shall, not later than 5 years after November 15, 1990, list categories and subcategories of sources assuring that sources accounting for not less than 90 per centum of the aggregate emissions of each such pollutant are subject to standards under subsection (d)(2) or (d)(4). Such standards shall be promulgated not later than 10 years after November 15, 1990. This paragraph shall not be construed to require the Administrator to promulgate standards for such pollutants emitted by electric utility steam generating units.

(7) Research facilities

The Administrator shall establish a separate category covering research or laboratory facilities, as necessary to assure the equitable treatment of such facilities. For purposes of this section, ''research or laboratory facility'' means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

(8) Boat manufacturing

When establishing emissions standards for styrene, the Administrator shall list boat manufacturing as a separate subcategory unless the Administrator finds that such listing would be inconsistent with the goals and requirements of this chapter.

(9) Deletions from the list

(A) Where the sole reason for the inclusion of a source category on the list required under this subsection is the emission of a unique chemical substance, the Administrator shall delete the source category from the list if it is appropriate because of action taken under either subparagraphs (C) or (D) of subsection (b)(3).

(B) The Administrator may delete any source category from the list under this subsection, on petition of any person or on the Administrator's own motion, whenever the Administrator makes the following determination or determinations, as applicable:

(i) In the case of hazardous air pollutants emitted by sources in the category that may result in cancer in humans, a determination that no source in the category (or group of sources in the case of area sources) emits such hazardous air pollutants in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed

to emissions of such pollutants from the source (or group of sources in the case of area sources).

(ii) In the case of hazardous air pollutants that may result in adverse health effects in humans other than cancer or adverse environmental effects, a determination that emissions from no source in the category or subcategory concerned (or group of sources in the case of area sources) exceed a level which is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from emissions from any source (or from a group of sources in the case of area sources).

The Administrator shall grant or deny a petition under this paragraph within 1 year after the petition is filed.

(d) Emission standards

(1) In general

The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c) in accordance with the schedules provided in subsections (c) and (e). The Administrator may distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards except that, there shall be no delay in the compliance date for any standard applicable to any source under subsection (i) as the result of the authority provided by this sentence.

(2) Standards and methods

Emissions standards promulgated under this subsection and applicable to new or existing sources of hazardous air pollutants shall require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies, through application of measures, processes, methods, systems or techniques including, but not limited to, measures which—

(A) reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications,

(B) enclose systems or processes to eliminate emissions,

(C) collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point,

(D) are design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in subsection (h), or

(E) are a combination of the above.

None of the measures described in subparagraphs (A) through (D) shall, consistent with the provisions of section 7414(c) of this title, in any way compromise any United States patent or United States trademark right, or any confidential business information, or any trade secret or any other intellectual property right.

(3) New and existing sources

The maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emission standards promulgated under this subsection for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than—

(A) the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate (as defined by section 7501 of this title) applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources, or

(B) the average emission limitation achieved by the best performing 5 sources (for which the Administrator has or could reasonably obtain emissions information) in the category or subcategory for categories or subcategories with fewer than 30 sources.

(4) Health threshold

With respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection.

(5) Alternative standard for area sources

With respect only to categories and subcategories of area sources listed pursuant to subsection (c), the Administrator may, in lieu of the authorities provided in paragraph (2) and subsection (f), elect to promulgate standards or requirements applicable to sources in such categories or subcategories which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.

(6) Review and revision

The Administrator shall review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section no less often than every 8 years.

(7) Other requirements preserved

No emission standard or other requirement promulgated under this section shall be interpreted, construed or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established pursuant to section 7411 of this title, part C or D, or other authority of this chapter or a standard issued under State authority.

(8) Coke ovens

(A) Not later than December 31, 1992, the Administrator shall promulgate regulations establishing emission standards under paragraphs (2) and (3) of this subsection for coke oven batteries. In establishing such standards, the Administrator shall evaluate—

(i) the use of sodium silicate (or equivalent) luting compounds to prevent door leaks, and other operating practices and technologies for their effectiveness in reducing coke oven emissions, and their suitability for use on new and existing coke oven batteries, taking into account costs and reasonable commercial door warranties; and

(ii) as a basis for emission standards under this subsection for new coke oven batteries that begin construction after the date of proposal of such standards, the Jewell design Thompson non-recovery coke oven batteries and other non-recovery coke oven technologies, and other appropriate emission control and coke production technologies, as to their effectiveness in reducing coke oven emissions and their capability for production of steel quality coke.

Such regulations shall require at a minimum that coke oven batteries will not exceed 8 per centum leaking doors, 1 per centum leaking lids, 5 per centum leaking offtakes, and 16 seconds visible emissions per charge, with no exclusion for emissions during the period after the closing of self-sealing oven doors. Notwithstanding subsection (i), the compliance date for such emission standards for existing coke oven batteries shall be December 31, 1995.

(B) The Administrator shall promulgate work practice regulations under this subsection for coke oven batteries requiring, as appropriate—

(i) the use of sodium silicate (or equivalent) luting compounds, if the Administrator determines that use of sodium silicate is an effective means of emissions control and is achievable, taking into account costs and reasonable commercial warranties for doors and related equipment; and

(ii) door and jam cleaning practices.

Notwithstanding subsection (i), the compliance date for such work practice regulations for coke oven batteries shall be not later than the date 3 years after November 15, 1990.

(C) For coke oven batteries electing to qualify for an extension of the compliance date for standards promulgated under subsection (f) in accordance with subsection (i)(8), the emission standards under this subsection for coke oven batteries shall require that coke oven batteries not exceed 8 per centum leaking doors, 1 per centum leaking lids, 5 per centum leaking offtakes, and 16 seconds visible emissions per charge, with no exclusion for emissions during the period after the closing of self-sealing doors. Notwithstanding subsection (i), the compliance date for such emission standards for existing coke oven batteries seeking an extension shall be not later than the date 3 years after November 15, 1990.

(9) Sources licensed by the Nuclear Regulatory Commission

No standard for radionuclide emissions from any category or subcategory of facilities licensed by the Nuclear Regulatory Commission (or an Agreement State) is required to be promulgated under this section if the Administrator determines, by rule, and after consultation with the Nuclear Regulatory Commission, that the regulatory program established by the Nuclear Regulatory Commission pursuant to the Atomic Energy Act [42 U.S.C. 2011 et seq.] for such category or subcategory provides an ample margin of safety to protect the public health. Nothing in this subsection shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce any standard or limitation respecting emissions of radionuclides which is more stringent than the standard or limitation in effect under section 7411 of this title or this section.

(10) Effective date

Emission standards or other regulations promulgated under this subsection shall be effective upon promulgation.

(e) Schedule for standards and review

(1) In general

The Administrator shall promulgate regulations establishing emission standards for categories and subcategories of sources initially listed for regulation pursuant to subsection (c)(1) as expeditiously as practicable, assuring that—

(A) emission standards for not less than 40 categories and subcategories (not counting coke oven batteries) shall be promulgated not later than 2 years after November 15, 1990;

(B) emission standards for coke oven batteries shall be promulgated not later than December 31, 1992;

(C) emission standards for 25 per centum of the listed categories and subcategories shall be promulgated not later than 4 years after November 15, 1990;

(D) emission standards for an additional 25 per centum of the listed categories and subcategories shall be promulgated not later than 7 years after November 15, 1990; and

(E) emission standards for all categories and subcategories shall be promulgated not later than 10 years after November 15, 1990.

(2) Priorities

In determining priorities for promulgating standards under subsection (d), the Administrator shall consider—

(A) the known or anticipated adverse effects of such pollutants on public health and the environment;

(B) the quantity and location of emissions or reasonably anticipated emissions of hazardous air pollutants that each category or subcategory will emit; and

(C) the efficiency of grouping categories or subcategories according to the pollutants emitted, or the processes or technologies used.

(3) Published schedule

Not later than 24 months after November 15, 1990, and after opportunity for comment, the Administrator shall publish a schedule establishing a date for the promulgation of emission standards for each category and subcategory of sources listed pursuant to subsection (c)(1) and (3) which shall be consistent with the requirements of paragraphs (1) and (2). The determination of priorities for the promulgation of standards pursuant to this paragraph is not a rulemaking and shall not be subject to judicial review, except that, failure to promulgate any standard pursuant to the schedule established by this paragraph shall be subject to review under section 7604 of this title.

(4) Judicial review

Notwithstanding section 7607 of this title, no action of the Administrator adding a pollutant to the list under subsection (b) or listing a source category or subcategory under subsection (c) shall be a final agency action subject to judicial review, except that any such action may be reviewed under such section 7607 of this title when the Administrator issues emission standards for such pollutant or category.

(5) Publicly owned treatment works

The Administrator shall promulgate standards pursuant to subsection (d) applicable to publicly owned treatment works (as defined in title II of the Federal Water Pollution Control Act [33 U.S.C. 1281 et seq.]) not later than 5 years after November 15, 1990.

(f) Standard to protect health and environment

(1) Report

Not later than 6 years after November 15, 1990, the Administrator shall investigate and report, after consultation with the Surgeon General and after opportunity for public comment, to Congress on—

(A) methods of calculating the risk to public health remaining, or likely to remain, from sources subject to regulation under this section after the application of standards under subsection (d);

(B) the public health significance of such estimated remaining risk and the technologically and commercially available methods and costs of reducing such risks;

(C) the actual health effects with respect to persons living in the vicinity of sources, any available epidemiological or other health studies, risks presented by background concentrations of hazardous air pollutants, any uncertainties in risk assessment methodology or other health assessment technique, and any negative health or environmental consequences to the community of efforts to reduce such risks; and

(D) recommendations as to legislation regarding such remaining risk.

(2) Emission standards

(A) If Congress does not act on any recommendation submitted under paragraph (1), the Administrator shall, within 8 years after promulgation of standards for each category or subcategory of sources pursuant to subsection (d), promulgate standards for such category or subcategory if promulgation of such standards is required in order to provide an ample margin of safety to protect public health in accordance with this section (as in effect before November 15, 1990) or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. Emission standards promulgated under this subsection shall provide an ample margin of safety to protect public health in accordance with this section (as in effect before November 15, 1990), unless the Administrator determines that a more stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. If standards promulgated pursuant to subsection (d) and applicable to a category or subcategory of sources emitting a pollutant (or pollutants) classified as a known, probable or possible human carcinogen do not reduce lifetime excess cancer risks to the individual most exposed to emissions from a source in the category or subcategory to less than one in one million, the Administrator shall promulgate standards under this subsection for such source category.

(B) Nothing in subparagraph (A) or in any other provision of this section shall be construed as affecting, or applying to the Administrator's interpretation of this section, as in effect before November 15, 1990, and set forth in the Federal Register of September 14, 1989 (54 Federal Register 38044).

(C) The Administrator shall determine whether or not to promulgate such standards and, if the Administrator decides to promulgate such standards, shall promulgate the standards 8 years after promulgation of the standards under subsection (d) for each source category or subcategory concerned. In the case of categories or subcategories for which standards under subsection (d) are required to be promulgated within 2 years after November 15, 1990, the Administrator shall have 9 years after promulgation of the standards under subsection (d) to make the determination under the preceding sentence and, if required, to promulgate the standards under this paragraph.

(3) Effective date

Any emission standard established pursuant to this subsection shall become effective upon promulgation.

(4) Prohibition

No air pollutant to which a standard under this subsection applies may be emitted from any stationary source in violation of such standard, except that in the case of an existing source—

(A) such standard shall not apply until 90 days after its effective date, and

(B) the Administrator may grant a waiver permitting such source a period of up to 2 years after the effective date of a standard to comply with the standard if the Administrator finds that such period is necessary for the installation of controls and that steps will be taken during the period of the waiver to assure that the health of persons will be protected from imminent endangerment.

(5) Area sources

The Administrator shall not be required to conduct any review under this subsection or promulgate emission limitations under this subsection for any category or subcategory of area sources that is listed pursuant to subsection (c)(3) and for which an emission standard is promulgated pursuant to subsection (d)(5).

(6) Unique chemical substances

In establishing standards for the control of unique chemical substances of listed pollutants without CAS numbers under this subsection, the Administrator shall establish such standards with respect to the health and environmental effects of the substances actually emitted by sources and direct transformation byproducts of such emissions in the categories and subcategories.

(g) Modifications

(1) Offsets

(A) A physical change in, or change in the method of operation of, a major source which results in a greater than de minimis increase in actual emissions of a hazardous air pollutant shall not be considered a modification, if such increase in the quantity of actual emissions of any hazardous air pollutant from such source will be offset by an equal or greater decrease in the quantity of emissions of another hazardous air pollutant (or pollutants) from such source which is deemed more hazardous, pursuant to guidance issued by the Administrator under subparagraph (B). The owner or operator of such source shall submit a showing to the Administrator (or the State) that such increase has been offset under the preceding sentence.

(B) The Administrator shall, after notice and opportunity for comment and not later than 18 months after November 15, 1990, publish guidance with respect to implementation of this subsection. Such guidance shall include an identification, to the extent practicable, of the relative hazard to human health resulting from emissions to the ambient air of each of the pollutants listed under subsection (b) sufficient to facilitate the offset showing authorized by subparagraph (A). Such guidance shall not authorize offsets between pollutants where the increased pollutant (or more than one pollutant in a stream of pollutants) causes adverse effects to human health for which no safety threshold for exposure can be determined unless there are corresponding decreases in such types of pollutant(s).

(2) Construction, reconstruction and modifications

(A) After the effective date of a permit program under subchapter V in any State, no person may modify a major source of hazardous air pollutants in such State, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for existing sources will be met. Such determination shall be made on a case-by-case basis where no applicable emissions limitations have been established by the Administrator.

(B) After the effective date of a permit program under subchapter V in any State, no person may construct or reconstruct any major source of hazardous air pollutants, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for new sources will be met. Such determination shall be made on a case-by-case basis where no applicable emission limitations have been established by the Administrator.

(3) Procedures for modifications

The Administrator (or the State) shall establish reasonable procedures for assuring that the requirements applying to modifications under this section are reflected in the permit.

(h) Work practice standards and other requirements

(1) In general

For purposes of this section, if it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, the Administrator may, in lieu thereof, promulgate a design, equipment, work practice, or operational standard, or combination thereof, which in the Administrator's judgment is consistent with the provisions of subsection (d) or (f). In the event the Administrator promulgates a design or equipment standard under this subsection, the Administrator shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) Definition

For the purpose of this subsection, the phrase ''not feasible to prescribe or enforce an emission standard'' means any situation in which the Administrator determines that—

(A) a hazardous air pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State or local law, or

(B) the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.

(3) Alternative standard

If after notice and opportunity for comment, the owner or operator of any source establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the re-

duction in emissions of such pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Numerical standard required

Any standard promulgated under paragraph (1) shall be promulgated in terms of an emission standard whenever it is feasible to promulgate and enforce a standard in such terms.

(i) Schedule for compliance

(1) Preconstruction and operating requirements

After the effective date of any emission standard, limitation, or regulation under subsection (d), (f) or (h), no person may construct any new major source or reconstruct any existing major source subject to such emission standard, regulation or limitation unless the Administrator (or a State with a permit program approved under subchapter V) determines that such source, if properly constructed, reconstructed and operated, will comply with the standard, regulation or limitation.

(2) Special rule

Notwithstanding the requirements of paragraph (1), a new source which commences construction or reconstruction after a standard, limitation or regulation applicable to such source is proposed and before such standard, limitation or regulation is promulgated shall not be required to comply with such promulgated standard until the date 3 years after the date of promulgation if—

(A) the promulgated standard, limitation or regulation is more stringent than the standard, limitation or regulation proposed; and

(B) the source complies with the standard, limitation, or regulation as proposed during the 3-year period immediately after promulgation.

(3) Compliance schedule for existing sources

(A) After the effective date of any emissions standard, limitation or regulation promulgated under this section and applicable to a source, no person may operate such source in violation of such standard, limitation or regulation except, in the case of an existing source, the Administrator shall establish a compliance date or dates for each category or subcategory of existing sources, which shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the effective date of such standard, except as provided in subparagraph (B) and paragraphs (4) through (8).

(B) The Administrator (or a State with a program approved under subchapter V) may issue a permit that grants an extension permitting an existing source up to 1 additional year to comply with standards under subsection (d) if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 4-year compliance time is insufficient to dry and cover mining waste in order to reduce emissions of any pollutant listed under subsection (b).

(4) Presidential exemption

The President may exempt any stationary source from compliance with any standard or limitation under this section for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years. The President shall report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

(5) Early reduction

(A) The Administrator (or a State acting pursuant to a permit program approved under subchapter V) shall issue a permit allowing an existing source, for which the owner or operator demonstrates that the source has achieved a reduction of 90 per centum or more in emissions of hazardous air pollutants (95 per centum in the case of hazardous air pollutants which are particulates) from the source, to meet an alternative emission limitation reflecting such reduction in lieu of an emission limitation promulgated under subsection (d) for a period of 6 years from the compliance date for the otherwise applicable standard, provided that such reduction is achieved before the otherwise applicable standard under subsection (d) is first proposed. Nothing in this paragraph shall preclude a State from requiring reductions in excess of those specified in this subparagraph as a condition of granting the extension authorized by the previous sentence.

(B) An existing source which achieves the reduction referred to in subparagraph (A) after the proposal of an applicable standard but before January 1, 1994, may qualify under subparagraph (A), if the source makes an enforceable commitment to achieve such reduction before the proposal of the standard. Such commitment shall be enforceable to the same extent as a regulation under this section.

(C) The reduction shall be determined with respect to verifiable and actual emissions in a base year not earlier than calendar year 1987, provided that, there is no evidence that emissions in the base year are artificially or substantially greater than emissions in other years prior to implementation of emissions reduction measures. The Administrator may allow a source to use a baseline year of 1985 or 1986 provided that the source can demonstrate to the satisfaction of the Administrator that emissions data for the source reflects verifiable data based on information for such source, received by the Administrator prior to November 15, 1990, pursuant to an information request issued under section 7414 of this title.

(D) For each source granted an alternative emission limitation under this paragraph there shall be established by a permit issued pursuant to subchapter V an enforceable emis-

sion limitation for hazardous air pollutants reflecting the reduction which qualifies the source for an alternative emission limitation under this paragraph. An alternative emission limitation under this paragraph shall not be available with respect to standards or requirements promulgated pursuant to subsection (f) and the Administrator shall, for the purpose of determining whether a standard under subsection (f) is necessary, review emissions from sources granted an alternative emission limitation under this paragraph at the same time that other sources in the category or subcategory are reviewed.

(E) With respect to pollutants for which high risks of adverse public health effects may be associated with exposure to small quantities including, but not limited to, chlorinated dioxins and furans, the Administrator shall by regulation limit the use of offsetting reductions in emissions of other hazardous air pollutants from the source as counting toward the 90 per centum reduction in such high-risk pollutants qualifying for an alternative emissions limitation under this paragraph.

(6) Other reductions

Notwithstanding the requirements of this section, no existing source that has installed—

(A) best available control technology (as defined in section 7479(3) of this title), or

(B) technology required to meet a lowest achievable emission rate (as defined in section 7501 of this title),

prior to the promulgation of a standard under this section applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to an action described in subparagraph (A) or (B) shall be required to comply with such standard under this section until the date 5 years after the date on which such installation or reduction has been achieved, as determined by the Administrator. The Administrator may issue such rules and guidance as are necessary to implement this paragraph.

(7) Extension for new sources

A source for which construction or reconstruction is commenced after the date an emission standard applicable to such source is proposed pursuant to subsection (d) but before the date an emission standard applicable to such source is proposed pursuant to subsection (f) shall not be required to comply with the emission standard under subsection (f) until the date 10 years after the date construction or reconstruction is commenced.

(8) Coke ovens

(A) Any coke oven battery that complies with the emission limitations established under subsection (d)(8)(C), subparagraph (B), and subparagraph (C), and complies with the provisions of subparagraph (E), shall not be required to achieve emission limitations promulgated under subsection (f) until January 1, 2020.

(B)(i) Not later than December 31, 1992, the Administrator shall promulgate emission limitations for coke oven emissions from coke oven batteries. Notwithstanding paragraph (3) of this subsection, the compliance date for such emission limitations for existing coke oven batteries shall be January 1, 1998. Such emission limitations shall reflect the lowest achievable emission rate as defined in section 7501 of this title for a coke oven battery that is rebuilt or a replacement at a coke oven plant for an existing battery. Such emission limitations shall be no less stringent than—

(I) 3 per centum leaking doors (5 per centum leaking doors for six meter batteries);

(II) 1 per centum leaking lids;

(III) 4 per centum leaking offtakes; and

(IV) 16 seconds visible emissions per charge,

with an exclusion for emissions during the period after the closing of self-sealing oven doors (or the total mass emissions equivalent). The rulemaking in which such emission limitations are promulgated shall also establish an appropriate measurement methodology for determining compliance with such emission limitations, and shall establish such emission limitations in terms of an equivalent level of mass emissions reduction from a coke oven battery, unless the Administrator finds that such a mass emissions standard would not be practicable or enforceable. Such measurement methodology, to the extent it measures leaking doors, shall take into consideration alternative test methods that reflect the best technology and practices actually applied in the affected industries, and shall assure that the final test methods are consistent with the performance of such best technology and practices.

(ii) If the Administrator fails to promulgate such emission limitations under this subparagraph prior to the effective date of such emission limitations, the emission limitations applicable to coke oven batteries under this subparagraph shall be—

(I) 3 per centum leaking doors (5 per centum leaking doors for six meter batteries);

(II) 1 per centum leaking lids;

(III) 4 per centum leaking offtakes; and

(IV) 16 seconds visible emissions per charge,

or the total mass emissions equivalent (if the total mass emissions equivalent is determined to be practicable and enforceable), with no exclusion for emissions during the period after the closing of self-sealing oven doors.

(C) Not later than January 1, 2007, the Administrator shall review the emission limitations promulgated under subparagraph (B) and revise, as necessary, such emission limitations to reflect the lowest achievable emission rate as defined in section 7501 of this title at the time for a coke oven battery that is rebuilt or a replacement at a coke oven plant for an existing battery. Such emission limitations shall be no less stringent than the emission limitation promulgated under subparagraph (B). Notwithstanding paragraph (2) of this subsection, the compliance date for such emission limitations for existing coke oven batteries shall be January 1, 2010.

(D) At any time prior to January 1, 1998, the owner or operator of any coke oven battery

may elect to comply with emission limitations promulgated under subsection (f) by the date such emission limitations would otherwise apply to such coke oven battery, in lieu of the emission limitations and the compliance dates provided under subparagraphs (B) and (C) of this paragraph. Any such owner or operator shall be legally bound to comply with such emission limitations promulgated under subsection (f) with respect to such coke oven battery as of January 1, 2003. If no such emission limitations have been promulgated for such coke oven battery, the Administrator shall promulgate such emission limitations in accordance with subsection (f) for such coke oven battery.

(E) Coke oven batteries qualifying for an extension under subparagraph (A) shall make available not later than January 1, 2000, to the surrounding communities the results of any risk assessment performed by the Administrator to determine the appropriate level of any emission standard established by the Administrator pursuant to subsection (f).

(F) Notwithstanding the provisions of this section, reconstruction of any source of coke oven emissions qualifying for an extension under this paragraph shall not subject such source to emission limitations under subsection (f) more stringent than those established under subparagraphs (B) and (C) until January 1, 2020. For the purposes of this subparagraph, the term ''reconstruction'' includes the replacement of existing coke oven battery capacity with new coke oven batteries of comparable or lower capacity and lower potential emissions.

(j) Equivalent emission limitation by permit

(1) Effective date

The requirements of this subsection shall apply in each State beginning on the effective date of a permit program established pursuant to subchapter V in such State, but not prior to the date 42 months after November 15, 1990.

(2) Failure to promulgate a standard

In the event that the Administrator fails to promulgate a standard for a category or subcategory of major sources by the date established pursuant to subsection (e)(1) and (3), and beginning 18 months after such date (but not prior to the effective date of a permit program under subchapter V), the owner or operator of any major source in such category or subcategory shall submit a permit application under paragraph (3) and such owner or operator shall also comply with paragraphs (5) and (6).

(3) Applications

By the date established by paragraph (2), the owner or operator of a major source subject to this subsection shall file an application for a permit. If the owner or operator of a source has submitted a timely and complete application for a permit required by this subsection, any failure to have a permit shall not be a violation of paragraph (2), unless the delay in final action is due to the failure of the applicant to timely submit information required or requested to process the application. The Administrator shall not later than 18 months after November 15, 1990, and after notice and opportunity for comment, establish requirements for applications under this subsection including a standard application form and criteria for determining in a timely manner the completeness of applications.

(4) Review and approval

Permit applications submitted under this subsection shall be reviewed and approved or disapproved according to the provisions of section 7661d of this title. In the event that the Administrator (or the State) disapproves a permit application submitted under this subsection or determines that the application is incomplete, the applicant shall have up to 6 months to revise the application to meet the objections of the Administrator (or the State).

(5) Emission limitation

The permit shall be issued pursuant to subchapter V and shall contain emission limitations for the hazardous air pollutants subject to regulation under this section and emitted by the source that the Administrator (or the State) determines, on a case-by-case basis, to be equivalent to the limitation that would apply to such source if an emission standard had been promulgated in a timely manner under subsection (d). In the alternative, if the applicable criteria are met, the permit may contain an emissions limitation established according to the provisions of subsection (i)(5). For purposes of the preceding sentence, the reduction required by subsection (i)(5)(A) shall be achieved by the date on which the relevant standard should have been promulgated under subsection (d). No such pollutant may be emitted in amounts exceeding an emission limitation contained in a permit immediately for new sources and, as expeditiously as practicable, but not later than the date 3 years after the permit is issued for existing sources or such other compliance date as would apply under subsection (i).

(6) Applicability of subsequent standards

If the Administrator promulgates an emission standard that is applicable to the major source prior to the date on which a permit application is approved, the emission limitation in the permit shall reflect the promulgated standard rather than the emission limitation determined pursuant to paragraph (5), provided that the source shall have the compliance period provided under subsection (i). If the Administrator promulgates a standard under subsection (d) that would be applicable to the source in lieu of the emission limitation established by permit under this subsection after the date on which the permit has been issued, the Administrator (or the State) shall revise such permit upon the next renewal to reflect the standard promulgated by the Administrator providing such source a reasonable time to comply, but no longer than 8 years after such standard is promulgated or 8 years after the date on which the source is first required to comply with the emissions limitation established by paragraph (5), whichever is earlier.

(k) Area source program

(1) Findings and purpose

The Congress finds that emissions of hazardous air pollutants from area sources may individually, or in the aggregate, present significant risks to public health in urban areas. Considering the large number of persons exposed and the risks of carcinogenic and other adverse health effects from hazardous air pollutants, ambient concentrations characteristic of large urban areas should be reduced to levels substantially below those currently experienced. It is the purpose of this subsection to achieve a substantial reduction in emissions of hazardous air pollutants from area sources and an equivalent reduction in the public health risks associated with such sources including a reduction of not less than 75 per centum in the incidence of cancer attributable to emissions from such sources.

(2) Research program

The Administrator shall, after consultation with State and local air pollution control officials, conduct a program of research with respect to sources of hazardous air pollutants in urban areas and shall include within such program—

(A) ambient monitoring for a broad range of hazardous air pollutants (including, but not limited to, volatile organic compounds, metals, pesticides and products of incomplete combustion) in a representative number of urban locations;

(B) analysis to characterize the sources of such pollution with a focus on area sources and the contribution that such sources make to public health risks from hazardous air pollutants; and

(C) consideration of atmospheric transformation and other factors which can elevate public health risks from such pollutants.

Health effects considered under this program shall include, but not be limited to, carcinogenicity, mutagenicity, teratogenicity, neurotoxicity, reproductive dysfunction and other acute and chronic effects including the role of such pollutants as precursors of ozone or acid aerosol formation. The Administrator shall report the preliminary results of such research not later than 3 years after November 15, 1990.

(3) National strategy

(A) Considering information collected pursuant to the monitoring program authorized by paragraph (2), the Administrator shall, not later than 5 years after November 15, 1990, and after notice and opportunity for public comment, prepare and transmit to the Congress a comprehensive strategy to control emissions of hazardous air pollutants from area sources in urban areas.

(B) The strategy shall—

(i) identify not less than 30 hazardous air pollutants which, as the result of emissions from area sources, present the greatest threat to public health in the largest number of urban areas and that are or will be listed pursuant to subsection (b), and

(ii) identify the source categories or subcategories emitting such pollutants that are or will be listed pursuant to subsection (c). When identifying categories and subcategories of sources under this subparagraph, the Administrator shall assure that sources accounting for 90 per centum or more of the aggregate emissions of each of the 30 identified hazardous air pollutants are subject to standards pursuant to subsection (d).

(C) The strategy shall include a schedule of specific actions to substantially reduce the public health risks posed by the release of hazardous air pollutants from area sources that will be implemented by the Administrator under the authority of this or other laws (including, but not limited to, the Toxic Substances Control Act [15 U.S.C. 2601 et seq.], the Federal Insecticide, Fungicide and Rodenticide Act [7 U.S.C. 136 et seq.] and the Resource Conservation and Recovery Act [42 U.S.C. 6901 et seq.]) or by the States. The strategy shall achieve a reduction in the incidence of cancer attributable to exposure to hazardous air pollutants emitted by stationary sources of not less than 75 per centum, considering control of emissions of hazardous air pollutants from all stationary sources and resulting from measures implemented by the Administrator or by the States under this or other laws.

(D) The strategy may also identify research needs in monitoring, analytical methodology, modeling or pollution control techniques and recommendations for changes in law that would further the goals and objectives of this subsection.

(E) Nothing in this subsection shall be interpreted to preclude or delay implementation of actions with respect to area sources of hazardous air pollutants under consideration pursuant to this or any other law and that may be promulgated before the strategy is prepared.

(F) The Administrator shall implement the strategy as expeditiously as practicable assuring that all sources are in compliance with all requirements not later than 9 years after November 15, 1990.

(G) As part of such strategy the Administrator shall provide for ambient monitoring and emissions modeling in urban areas as appropriate to demonstrate that the goals and objectives of the strategy are being met.

(4) Areawide activities

In addition to the national urban air toxics strategy authorized by paragraph (3), the Administrator shall also encourage and support areawide strategies developed by State or local air pollution control agencies that are intended to reduce risks from emissions by area sources within a particular urban area. From the funds available for grants under this section, the Administrator shall set aside not less than 10 per centum to support areawide strategies addressing hazardous air pollutants emitted by area sources and shall award such funds on a demonstration basis to those States with innovative and effective strategies. At the request of State or local air pollution control officials, the Administrator shall prepare guidelines for control technologies or manage-

ment practices which may be applicable to various categories or subcategories of area sources.

(5) Report

The Administrator shall report to the Congress at intervals not later than 8 and 12 years after November 15, 1990, on actions taken under this subsection and other parts of this chapter to reduce the risk to public health posed by the release of hazardous air pollutants from area sources. The reports shall also identify specific metropolitan areas that continue to experience high risks to public health as the result of emissions from area sources.

***(l)* State programs**

(1) In general

Each State may develop and submit to the Administrator for approval a program for the implementation and enforcement (including a review of enforcement delegations previously granted) of emission standards and other requirements for air pollutants subject to this section or requirements for the prevention and mitigation of accidental releases pursuant to subsection (r). A program submitted by a State under this subsection may provide for partial or complete delegation of the Administrator's authorities and responsibilities to implement and enforce emissions standards and prevention requirements but shall not include authority to set standards less stringent than those promulgated by the Administrator under this chapter.

(2) Guidance

Not later than 12 months after November 15, 1990, the Administrator shall publish guidance that would be useful to the States in developing programs for submittal under this subsection. The guidance shall also provide for the registration of all facilities producing, processing, handling or storing any substance listed pursuant to subsection (r) in amounts greater than the threshold quantity. The Administrator shall include as an element in such guidance an optional program begun in 1986 for the review of high-risk point sources of air pollutants including, but not limited to, hazardous air pollutants listed pursuant to subsection (b).

(3) Technical assistance

The Administrator shall establish and maintain an air toxics clearinghouse and center to provide technical information and assistance to State and local agencies and, on a cost recovery basis, to others on control technology, health and ecological risk assessment, risk analysis, ambient monitoring and modeling, and emissions measurement and monitoring. The Administrator shall use the authority of section 7403 of this title to examine methods for preventing, measuring, and controlling emissions and evaluating associated health and ecological risks. Where appropriate, such activity shall be conducted with not-for-profit organizations. The Administrator may conduct research on methods for preventing, measuring and controlling emissions and evaluating associated health and environment risks. All information collected under this paragraph shall be available to the public.

(4) Grants

Upon application of a State, the Administrator may make grants, subject to such terms and conditions as the Administrator deems appropriate, to such State for the purpose of assisting the State in developing and implementing a program for submittal and approval under this subsection. Programs assisted under this paragraph may include program elements addressing air pollutants or extremely hazardous substances other than those specifically subject to this section. Grants under this paragraph may include support for high-risk point source review as provided in paragraph (2) and support for the development and implementation of areawide area source programs pursuant to subsection (k).

(5) Approval or disapproval

Not later than 180 days after receiving a program submitted by a State, and after notice and opportunity for public comment, the Administrator shall either approve or disapprove such program. The Administrator shall disapprove any program submitted by a State, if the Administrator determines that—

(A) the authorities contained in the program are not adequate to assure compliance by all sources within the State with each applicable standard, regulation or requirement established by the Administrator under this section;

(B) adequate authority does not exist, or adequate resources are not available, to implement the program;

(C) the schedule for implementing the program and assuring compliance by affected sources is not sufficiently expeditious; or

(D) the program is otherwise not in compliance with the guidance issued by the Administrator under paragraph (2) or is not likely to satisfy, in whole or in part, the objectives of this chapter.

If the Administrator disapproves a State program, the Administrator shall notify the State of any revisions or modifications necessary to obtain approval. The State may revise and resubmit the proposed program for review and approval pursuant to the provisions of this subsection.

(6) Withdrawal

Whenever the Administrator determines, after public hearing, that a State is not administering and enforcing a program approved pursuant to this subsection in accordance with the guidance published pursuant to paragraph (2) or the requirements of paragraph (5), the Administrator shall so notify the State and, if action which will assure prompt compliance is not taken within 90 days, the Administrator shall withdraw approval of the program. The Administrator shall not withdraw approval of any program unless the State shall have been notified and the reasons for withdrawal shall have been stated in writing and made public.

(7) Authority to enforce

Nothing in this subsection shall prohibit the Administrator from enforcing any applicable

emission standard or requirement under this section.

(8) Local program

The Administrator may, after notice and opportunity for public comment, approve a program developed and submitted by a local air pollution control agency (after consultation with the State) pursuant to this subsection and any such agency implementing an approved program may take any action authorized to be taken by a State under this section.

(9) Permit authority

Nothing in this subsection shall affect the authorities and obligations of the Administrator or the State under subchapter V.

(m) Atmospheric deposition to Great Lakes and coastal waters

(1) Deposition assessment

The Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall conduct a program to identify and assess the extent of atmospheric deposition of hazardous air pollutants (and in the discretion of the Administrator, other air pollutants) to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters. As part of such program, the Administrator shall—

(A) monitor the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters, including monitoring of the Great Lakes through the monitoring network established pursuant to paragraph (2) of this subsection and designing and deploying an atmospheric monitoring network for coastal waters pursuant to paragraph (4);

(B) investigate the sources and deposition rates of atmospheric deposition of air pollutants (and their atmospheric transformation precursors);

(C) conduct research to develop and improve monitoring methods and to determine the relative contribution of atmospheric pollutants to total pollution loadings to the Great Lakes, the Chesapeake Bay, Lake Champlain, and coastal waters;

(D) evaluate any adverse effects to public health or the environment caused by such deposition (including effects resulting from indirect exposure pathways) and assess the contribution of such deposition to violations of water quality standards established pursuant to the Federal Water Pollution Control Act [33 U.S.C. 1251 et seq.] and drinking water standards established pursuant to the Safe Drinking Water Act [42 U.S.C. 300f et seq.]; and

(E) sample for such pollutants in biota, fish, and wildlife of the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters and characterize the sources of such pollutants.

(2) Great Lakes monitoring network

The Administrator shall oversee, in accordance with Annex 15 of the Great Lakes Water Quality Agreement, the establishment and operation of a Great Lakes atmospheric deposition network to monitor atmospheric deposition of hazardous air pollutants (and in the Administrator's discretion, other air pollutants) to the Great Lakes.

(A) As part of the network provided for in this paragraph, and not later than December 31, 1991, the Administrator shall establish in each of the 5 Great Lakes at least 1 facility capable of monitoring the atmospheric deposition of hazardous air pollutants in both dry and wet conditions.

(B) The Administrator shall use the data provided by the network to identify and track the movement of hazardous air pollutants through the Great Lakes, to determine the portion of water pollution loadings attributable to atmospheric deposition of such pollutants, and to support development of remedial action plans and other management plans as required by the Great Lakes Water Quality Agreement.

(C) The Administrator shall assure that the data collected by the Great Lakes atmospheric deposition monitoring network is in a format compatible with databases sponsored by the International Joint Commission, Canada, and the several States of the Great Lakes region.

(3) Monitoring for the Chesapeake Bay and Lake Champlain

The Administrator shall establish at the Chesapeake Bay and Lake Champlain atmospheric deposition stations to monitor deposition of hazardous air pollutants (and in the Administrator's discretion, other air pollutants) within the Chesapeake Bay and Lake Champlain watersheds. The Administrator shall determine the role of air deposition in the pollutant loadings of the Chesapeake Bay and Lake Champlain, investigate the sources of air pollutants deposited in the watersheds, evaluate the health and environmental effects of such pollutant loadings, and shall sample such pollutants in biota, fish and wildlife within the watersheds, as necessary to characterize such effects.

(4) Monitoring for coastal waters

The Administrator shall design and deploy atmospheric deposition monitoring networks for coastal waters and their watersheds and shall make any information collected through such networks available to the public. As part of this effort, the Administrator shall conduct research to develop and improve deposition monitoring methods, and to determine the relative contribution of atmospheric pollutants to pollutant loadings. For purposes of this subsection, ''coastal waters'' shall mean estuaries selected pursuant to section 320(a)(2)(A) of the Federal Water Pollution Control Act [33 U.S.C. 1330(a)(2)(A)] or listed pursuant to section 320(a)(2)(B) of such Act [33 U.S.C. 1330(a)(2)(B)] or estuarine research reserves designated pursuant to section 1461 of title 16.

(5) Report

Within 3 years of November 15, 1990, and biennially thereafter, the Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall submit to the Congress a report on the results of

any monitoring, studies, and investigations conducted pursuant to this subsection. Such report shall include, at a minimum, an assessment of—

(A) the contribution of atmospheric deposition to pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(B) the environmental and public health effects of any pollution which is attributable to atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(C) the source or sources of any pollution to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters which is attributable to atmospheric deposition;

(D) whether pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain or coastal waters cause or contribute to exceedances of drinking water standards pursuant to the Safe Drinking Water Act [42 U.S.C. 300f et seq.] or water quality standards pursuant to the Federal Water Pollution Control Act [33 U.S.C. 1251 et seq.] or, with respect to the Great Lakes, exceedances of the specific objectives of the Great Lakes Water Quality Agreement; and

(E) a description of any revisions of the requirements, standards, and limitations pursuant to this chapter and other applicable Federal laws as are necessary to assure protection of human health and the environment.

(6) Additional regulation

As part of the report to Congress, the Administrator shall determine whether the other provisions of this section are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects, including such effects resulting from indirect exposure pathways, associated with atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters of hazardous air pollutants (and their atmospheric transformation products). The Administrator shall take into consideration the tendency of such pollutants to bioaccumulate. Within 5 years after November 15, 1990, the Administrator shall, based on such report and determination, promulgate, in accordance with this section, such further emission standards or control measures as may be necessary and appropriate to prevent such effects, including effects due to bioaccumulation and indirect exposure pathways. Any requirements promulgated pursuant to this paragraph with respect to coastal waters shall only apply to the coastal waters of the States which are subject to section 7627(a) of this title.

(n) Other provisions

(1) Electric utility steam generating units

(A) The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of pollutants listed under subsection (b) after imposition of the requirements of this chapter. The Administrator shall report the results of this study to the Congress within 3 years after November 15, 1990. The Administrator shall develop and describe in the Administrator's report to Congress alternative control strategies for emissions which may warrant regulation under this section. The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.

(B) The Administrator shall conduct, and transmit to the Congress not later than 4 years after November 15, 1990, a study of mercury emissions from electric utility steam generating units, municipal waste combustion units, and other sources, including area sources. Such study shall consider the rate and mass of such emissions, the health and environmental effects of such emissions, technologies which are available to control such emissions, and the costs of such technologies.

(C) The National Institute of Environmental Health Sciences shall conduct, and transmit to the Congress not later than 3 years after November 15, 1990, a study to determine the threshold level of mercury exposure below which adverse human health effects are not expected to occur. Such study shall include a threshold for mercury concentrations in the tissue of fish which may be consumed (including consumption by sensitive populations) without adverse effects to public health.

(2) Coke oven production technology study

(A) The Secretary of the Department of Energy and the Administrator shall jointly undertake a 6-year study to assess coke oven production emission control technologies and to assist in the development and commercialization of technically practicable and economically viable control technologies which have the potential to significantly reduce emissions of hazardous air pollutants from coke oven production facilities. In identifying control technologies, the Secretary and the Administrator shall consider the range of existing coke oven operations and battery design and the availability of sources of materials for such coke ovens as well as alternatives to existing coke oven production design.

(B) The Secretary and the Administrator are authorized to enter into agreements with persons who propose to develop, install and operate coke production emission control technologies which have the potential for significant emissions reductions of hazardous air pollutants provided that Federal funds shall not exceed 50 per centum of the cost of any project assisted pursuant to this paragraph.

(C) On completion of the study, the Secretary shall submit to Congress a report on the results of the study and shall make recommendations to the Administrator identifying practicable and economically viable control technologies for coke oven production facilities to reduce residual risks remaining after implementation of the standard under subsection (d).

(D) There are authorized to be appropriated $5,000,000 for each of the fiscal years 1992

through 1997 to carry out the program authorized by this paragraph.

(3) Publicly owned treatment works

The Administrator may conduct, in cooperation with the owners and operators of publicly owned treatment works, studies to characterize emissions of hazardous air pollutants emitted by such facilities, to identify industrial, commercial and residential discharges that contribute to such emissions and to demonstrate control measures for such emissions. When promulgating any standard under this section applicable to publicly owned treatment works, the Administrator may provide for control measures that include pretreatment of discharges causing emissions of hazardous air pollutants and process or product substitutions or limitations that may be effective in reducing such emissions. The Administrator may prescribe uniform sampling, modeling and risk assessment methods for use in implementing this subsection.

(4) Oil and gas wells; pipeline facilities

(A) Notwithstanding the provisions of subsection (a), emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources, and in the case of any oil or gas exploration or production well (with its associated equipment), such emissions shall not be aggregated for any purpose under this section.

(B) The Administrator shall not list oil and gas production wells (with its associated equipment) as an area source category under subsection (c), except that the Administrator may establish an area source category for oil and gas production wells located in any metropolitan statistical area or consolidated metropolitan statistical area with a population in excess of 1 million, if the Administrator determines that emissions of hazardous air pollutants from such wells present more than a negligible risk of adverse effects to public health.

(5) Hydrogen sulfide

The Administrator is directed to assess the hazards to public health and the environment resulting from the emission of hydrogen sulfide associated with the extraction of oil and natural gas resources. To the extent practicable, the assessment shall build upon and not duplicate work conducted for an assessment pursuant to section 8002(m) of the Solid Waste Disposal Act [42 U.S.C. 6982(m)] and shall reflect consultation with the States. The assessment shall include a review of existing State and industry control standards, techniques and enforcement. The Administrator shall report to the Congress within 24 months after November 15, 1990, with the findings of such assessment, together with any recommendations, and shall, as appropriate, develop and implement a control strategy for emissions of hydrogen sulfide to protect human health and the environment, based on the findings of such assessment, using authorities under this chapter including sections[3] 7411 of this title and this section.

(6) Hydrofluoric acid

Not later than 2 years after November 15, 1990, the Administrator shall, for those regions of the country which do not have comprehensive health and safety regulations with respect to hydrofluoric acid, complete a study of the potential hazards of hydrofluoric acid and the uses of hydrofluoric acid in industrial and commercial applications to public health and the environment considering a range of events including worst-case accidental releases and shall make recommendations to the Congress for the reduction of such hazards, if appropriate.

(7) RCRA facilities

In the case of any category or subcategory of sources the air emissions of which are regulated under subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.], the Administrator shall take into account any regulations of such emissions which are promulgated under such subtitle and shall, to the maximum extent practicable and consistent with the provisions of this section, ensure that the requirements of such subtitle and this section are consistent.

***(o)* National Academy of Sciences study**

(1) Request of the Academy

Within 3 months of November 15, 1990, the Administrator shall enter into appropriate arrangements with the National Academy of Sciences to conduct a review of—

(A) risk assessment methodology used by the Environmental Protection Agency to determine the carcinogenic risk associated with exposure to hazardous air pollutants from source categories and subcategories subject to the requirements of this section; and

(B) improvements in such methodology.

(2) Elements to be studied

In conducting such review, the National Academy of Sciences should consider, but not be limited to, the following—

(A) the techniques used for estimating and describing the carcinogenic potency to humans of hazardous air pollutants; and

(B) the techniques used for estimating exposure to hazardous air pollutants (for hypothetical and actual maximally exposed individuals as well as other exposed individuals).

(3) Other health effects of concern

To the extent practicable, the Academy shall evaluate and report on the methodology for assessing the risk of adverse human health effects other than cancer for which safe thresholds of exposure may not exist, including, but not limited to, inheritable genetic mutations, birth defects, and reproductive dysfunctions.

(4) Report

A report on the results of such review shall be submitted to the Senate Committee on En-

[3] So in original. Probably should be ''section''.

vironment and Public Works, the House Committee on Energy and Commerce, the Risk Assessment and Management Commission established by section 303 of the Clean Air Act Amendments of 1990 and the Administrator not later than 30 months after November 15, 1990.

(5) Assistance

The Administrator shall assist the Academy in gathering any information the Academy deems necessary to carry out this subsection. The Administrator may use any authority under this chapter to obtain information from any person, and to require any person to conduct tests, keep and produce records, and make reports respecting research or other activities conducted by such person as necessary to carry out this subsection.

(6) Authorization

Of the funds authorized to be appropriated to the Administrator by this chapter, such amounts as are required shall be available to carry out this subsection.

(7) Guidelines for carcinogenic risk assessment

The Administrator shall consider, but need not adopt, the recommendations contained in the report of the National Academy of Sciences prepared pursuant to this subsection and the views of the Science Advisory Board, with respect to such report. Prior to the promulgation of any standard under subsection (f), and after notice and opportunity for comment, the Administrator shall publish revised Guidelines for Carcinogenic Risk Assessment or a detailed explanation of the reasons that any recommendations contained in the report of the National Academy of Sciences will not be implemented. The publication of such revised Guidelines shall be a final Agency action for purposes of section 7607 of this title.

(p) Mickey Leland National Urban Air Toxics Research Center

(1) Establishment

The Administrator shall oversee the establishment of a National Urban Air Toxics Research Center, to be located at a university, a hospital, or other facility capable of undertaking and maintaining similar research capabilities in the areas of epidemiology, oncology, toxicology, pulmonary medicine, pathology, and biostatistics. The center shall be known as the Mickey Leland National Urban Air Toxics Research Center. The geographic site of the National Urban Air Toxics Research Center should be further directed to Harris County, Texas, in order to take full advantage of the well developed scientific community presence on-site at the Texas Medical Center as well as the extensive data previously compiled for the comprehensive monitoring system currently in place.

(2) Board of Directors

The National Urban Air Toxics Research Center shall be governed by a Board of Directors to be comprised of 9 members, the appointment of which shall be allocated pro rata among the Speaker of the House, the Majority Leader of the Senate and the President. The members of the Board of Directors shall be selected based on their respective academic and professional backgrounds and expertise in matters relating to public health, environmental pollution and industrial hygiene. The duties of the Board of Directors shall be to determine policy and research guidelines, submit views from center sponsors and the public and issue periodic reports of center findings and activities.

(3) Scientific Advisory Panel

The Board of Directors shall be advised by a Scientific Advisory Panel, the 13 members of which shall be appointed by the Board, and to include eminent members of the scientific and medical communities. The Panel membership may include scientists with relevant experience from the National Institute of Environmental Health Sciences, the Center for Disease Control, the Environmental Protection Agency, the National Cancer Institute, and others, and the Panel shall conduct peer review and evaluate research results. The Panel shall assist the Board in developing the research agenda, reviewing proposals and applications, and advise on the awarding of research grants.

(4) Funding

The center shall be established and funded with both Federal and private source funds.

(q) Savings provision

(1) Standards previously promulgated

Any standard under this section in effect before the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990] shall remain in force and effect after such date unless modified as provided in this section before the date of enactment of such Amendments or under such Amendments. Except as provided in paragraph (4), any standard under this section which has been promulgated, but has not taken effect, before such date shall not be affected by such Amendments unless modified as provided in this section before such date or under such Amendments. Each such standard shall be reviewed and, if appropriate, revised, to comply with the requirements of subsection (d) within 10 years after the date of enactment of the Clean Air Act Amendments of 1990. If a timely petition for review of any such standard under section 7607 of this title is pending on such date of enactment, the standard shall be upheld if it complies with this section as in effect before that date. If any such standard is remanded to the Administrator, the Administrator may in the Administrator's discretion apply either the requirements of this section, or those of this section as in effect before the date of enactment of the Clean Air Act Amendments of 1990.

(2) Special rule

Notwithstanding paragraph (1), no standard shall be established under this section, as amended by the Clean Air Act Amendments of 1990, for radionuclide emissions from (A) elemental phosphorous plants, (B) grate calcination elemental phosphorous plants, (C)

phosphogypsum stacks, or (D) any subcategory of the foregoing. This section, as in effect prior to the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], shall remain in effect for radionuclide emissions from such plants and stacks.

(3) Other categories

Notwithstanding paragraph (1), this section, as in effect prior to the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], shall remain in effect for radionuclide emissions from non-Department of Energy Federal facilities that are not licensed by the Nuclear Regulatory Commission, coal-fired utility and industrial boilers, underground uranium mines, surface uranium mines, and disposal of uranium mill tailings piles, unless the Administrator, in the Administrator's discretion, applies the requirements of this section as modified by the Clean Air Act Amendments of 1990 to such sources of radionuclides.

(4) Medical facilities

Notwithstanding paragraph (1), no standard promulgated under this section prior to November 15, 1990, with respect to medical research or treatment facilities shall take effect for two years following November 15, 1990, unless the Administrator makes a determination pursuant to a rulemaking under subsection (d)(9). If the Administrator determines that the regulatory program established by the Nuclear Regulatory Commission for such facilities does not provide an ample margin of safety to protect public health, the requirements of this section shall fully apply to such facilities. If the Administrator determines that such regulatory program does provide an ample margin of safety to protect the public health, the Administrator is not required to promulgate a standard under this section for such facilities, as provided in subsection (d)(9).

(r) Prevention of accidental releases

(1) Purpose and general duty

It shall be the objective of the regulations and programs authorized under this subsection to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance. The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty in the same manner and to the same extent as section 654 of title 29 to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. For purposes of this paragraph, the provisions of section 7604 of this title shall not be available to any person or otherwise be construed to be applicable to this paragraph. Nothing in this section shall be interpreted, construed, implied or applied to create any liability or basis for suit for compensation for bodily injury or any other injury or property damages to any person which may result from accidental releases of such substances.

(2) Definitions

(A) The term ''accidental release'' means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

(B) The term ''regulated substance'' means a substance listed under paragraph (3).

(C) The term ''stationary source'' means any buildings, structures, equipment, installations or substance emitting stationary activities (i) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur.

(D) The term ''retail facility'' means a stationary source at which more than one-half of the income is obtained from direct sales to end users or at which more than one-half of the fuel sold, by volume, is sold through a cylinder exchange program.

(3) List of substances

The Administrator shall promulgate not later than 24 months after November 15, 1990, an initial list of 100 substances which, in the case of an accidental release, are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment. For purposes of promulgating such list, the Administrator shall use, but is not limited to, the list of extremely hazardous substances published under the Emergency Planning and Community Right-to-Know[4] Act of 1986 [42 U.S.C. 11001 et seq.], with such modifications as the Administrator deems appropriate. The initial list shall include chlorine, anhydrous ammonia, methyl chloride, ethylene oxide, vinyl chloride, methyl isocyanate, hydrogen cyanide, ammonia, hydrogen sulfide, toluene diisocyanate, phosgene, bromine, anhydrous hydrogen chloride, hydrogen fluoride, anhydrous sulfur dioxide, and sulfur trioxide. The initial list shall include at least 100 substances which pose the greatest risk of causing death, injury, or serious adverse effects to human health or the environment from accidental releases. Regulations establishing the list shall include an explanation of the basis for establishing the list. The list may be revised from time to time by the Administrator on the Administrator's own motion or by petition and shall be reviewed at least every 5 years. No air pollutant for which a national primary ambient air quality standard has been established shall be included on any such list. No substance, practice, process, or activity regulated under subchapter VI shall be subject to regulations under this subsection. The Administrator shall establish procedures for the addition and deletion of substances from the list established under this paragraph consistent with those applicable to the list in subsection (b).

[4] So in original. Probably should be ''Right-To-Know''.

(4) Factors to be considered

In listing substances under paragraph (3), the Administrator—

(A) shall consider—

(i) the severity of any acute adverse health effects associated with accidental releases of the substance;

(ii) the likelihood of accidental releases of the substance; and

(iii) the potential magnitude of human exposure to accidental releases of the substance; and

(B) shall not list a flammable substance when used as a fuel or held for sale as a fuel at a retail facility under this subsection solely because of the explosive or flammable properties of the substance, unless a fire or explosion caused by the substance will result in acute adverse health effects from human exposure to the substance, including the unburned fuel or its combustion byproducts, other than those caused by the heat of the fire or impact of the explosion.

(5) Threshold quantity

At the time any substance is listed pursuant to paragraph (3), the Administrator shall establish by rule, a threshold quantity for the substance, taking into account the toxicity, reactivity, volatility, dispersibility, combustibility, or flammability of the substance and the amount of the substance which, as a result of an accidental release, is known to cause or may reasonably be anticipated to cause death, injury or serious adverse effects to human health for which the substance was listed. The Administrator is authorized to establish a greater threshold quantity for, or to exempt entirely, any substance that is a nutrient used in agriculture when held by a farmer.

(6) Chemical Safety Board

(A) There is hereby established an independent safety board to be known as the Chemical Safety and Hazard Investigation Board.

(B) The Board shall consist of 5 members, including a Chairperson, who shall be appointed by the President, by and with the advice and consent of the Senate. Members of the Board shall be appointed on the basis of technical qualification, professional standing, and demonstrated knowledge in the fields of accident reconstruction, safety engineering, human factors, toxicology, or air pollution regulation. The terms of office of members of the Board shall be 5 years. Any member of the Board, including the Chairperson, may be removed for inefficiency, neglect of duty, or malfeasance in office. The Chairperson shall be the Chief Executive Officer of the Board and shall exercise the executive and administrative functions of the Board.

(C) The Board shall—

(i) investigate (or cause to be investigated), determine and report to the public in writing the facts, conditions, and circumstances and the cause or probable cause of any accidental release resulting in a fatality, serious injury or substantial property damages;

(ii) issue periodic reports to the Congress, Federal, State and local agencies, including the Environmental Protection Agency and the Occupational Safety and Health Administration, concerned with the safety of chemical production, processing, handling and storage, and other interested persons recommending measures to reduce the likelihood or the consequences of accidental releases and proposing corrective steps to make chemical production, processing, handling and storage as safe and free from risk of injury as is possible and may include in such reports proposed rules or orders which should be issued by the Administrator under the authority of this section or the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C. 651 et seq.] to prevent or minimize the consequences of any release of substances that may cause death, injury or other serious adverse effects on human health or substantial property damage as the result of an accidental release; and

(iii) establish by regulation requirements binding on persons for reporting accidental releases into the ambient air subject to the Board's investigatory jurisdiction. Reporting releases to the National Response Center, in lieu of the Board directly, shall satisfy such regulations. The National Response Center shall promptly notify the Board of any releases which are within the Board's jurisdiction.

(D) The Board may utilize the expertise and experience of other agencies.

(E) The Board shall coordinate its activities with investigations and studies conducted by other agencies of the United States having a responsibility to protect public health and safety. The Board shall enter into a memorandum of understanding with the National Transportation Safety Board to assure coordination of functions and to limit duplication of activities which shall designate the National Transportation Safety Board as the lead agency for the investigation of releases which are transportation related. The Board shall not be authorized to investigate marine oil spills, which the National Transportation Safety Board is authorized to investigate. The Board shall enter into a memorandum of understanding with the Occupational Safety and Health Administration so as to limit duplication of activities. In no event shall the Board forego an investigation where an accidental release causes a fatality or serious injury among the general public, or had the potential to cause substantial property damage or a number of deaths or injuries among the general public.

(F) The Board is authorized to conduct research and studies with respect to the potential for accidental releases, whether or not an accidental release has occurred, where there is evidence which indicates the presence of a potential hazard or hazards. To the extent practicable, the Board shall conduct such studies in cooperation with other Federal agencies having emergency response authorities, State and local governmental agencies and associations and organizations from the industrial, commercial, and nonprofit sectors.

(G) No part of the conclusions, findings, or recommendations of the Board relating to any

accidental release or the investigation thereof shall be admitted as evidence or used in any action or suit for damages arising out of any matter mentioned in such report.

(H) Not later than 18 months after November 15, 1990, the Board shall publish a report accompanied by recommendations to the Administrator on the use of hazard assessments in preventing the occurrence and minimizing the consequences of accidental releases of extremely hazardous substances. The recommendations shall include a list of extremely hazardous substances which are not regulated substances (including threshold quantities for such substances) and categories of stationary sources for which hazard assessments would be an appropriate measure to aid in the prevention of accidental releases and to minimize the consequences of those releases that do occur. The recommendations shall also include a description of the information and analysis which would be appropriate to include in any hazard assessment. The Board shall also make recommendations with respect to the role of risk management plans as required by paragraph (8)(B)[5] in preventing accidental releases. The Board may from time to time review and revise its recommendations under this subparagraph.

(I) Whenever the Board submits a recommendation with respect to accidental releases to the Administrator, the Administrator shall respond to such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board's recommendation by the Administrator shall indicate whether the Administrator will—

(i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;[6]

(ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Administrator not to implement a recommendation of the Board or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Administrator setting forth the reasons for such determination.

(J) The Board may make recommendations with respect to accidental releases to the Secretary of Labor. Whenever the Board submits such recommendation, the Secretary shall respond to such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board's recommendation by the Administrator[7] shall indicate whether the Secretary will—

(i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;[6]

(ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Secretary not to implement a recommendation or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Secretary setting forth the reasons for such determination.

(K) Within 2 years after November 15, 1990, the Board shall issue a report to the Administrator of the Environmental Protection Agency and to the Administrator of the Occupational Safety and Health Administration recommending the adoption of regulations for the preparation of risk management plans and general requirements for the prevention of accidental releases of regulated substances into the ambient air (including recommendations for listing substances under paragraph (3)) and for the mitigation of the potential adverse effect on human health or the environment as a result of accidental releases which should be applicable to any stationary source handling any regulated substance in more than threshold amounts. The Board may include proposed rules or orders which should be issued by the Administrator under authority of this subsection or by the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C. 651 et seq.]. Any such recommendations shall be specific and shall identify the regulated substance or class of regulated substances (or other substances) to which the recommendations apply. The Administrator shall consider such recommendations before promulgating regulations required by paragraph (7)(B).

(L) The Board, or upon authority of the Board, any member thereof, any administrative law judge employed by or assigned to the Board, or any officer or employee duly designated by the Board, may for the purpose of carrying out duties authorized by subparagraph (C)—

(i) hold such hearings, sit and act at such times and places, administer such oaths, and require by subpoena or otherwise attendance and testimony of such witnesses and the production of evidence and may require by order that any person engaged in the production, processing, handling, or storage of extremely hazardous substances submit written reports and responses to requests and questions within such time and in such form as the Board may require; and

(ii) upon presenting appropriate credentials and a written notice of inspection authority, enter any property where an accidental release causing a fatality, serious injury or substantial property damage has occurred and do all things therein necessary for a proper investigation pursuant to subparagraph (C) and inspect at reasonable times records, files, papers, processes, controls, and facilities and take such samples as are relevant to such investigation.

Whenever the Administrator or the Board conducts an inspection of a facility pursuant to this subsection, employees and their representatives shall have the same rights to par-

[5] So in original. Probably should be paragraph ''(7)(B)''.

[6] So in original. The word ''or'' probably should appear.

[7] So in original. The word ''Administrator'' probably should be ''Secretary''.

ticipate in such inspections as provided in the Occupational Safety and Health Act [29 U.S.C. 651 et seq.].

(M) In addition to that described in subparagraph (L), the Board may use any information gathering authority of the Administrator under this chapter, including the subpoena power provided in section 7607(a)(1) of this title.

(N) The Board is authorized to establish such procedural and administrative rules as are necessary to the exercise of its functions and duties. The Board is authorized without regard to section 6101 of title 41 to enter into contracts, leases, cooperative agreements or other transactions as may be necessary in the conduct of the duties and functions of the Board with any other agency, institution, or person.

(O) After the effective date of any reporting requirement promulgated pursuant to subparagraph (C)(iii) it shall be unlawful for any person to fail to report any release of any extremely hazardous substance as required by such subparagraph. The Administrator is authorized to enforce any regulation or requirements established by the Board pursuant to subparagraph (C)(iii) using the authorities of sections 7413 and 7414 of this title. Any request for information from the owner or operator of a stationary source made by the Board or by the Administrator under this section shall be treated, for purposes of sections 7413, 7414, 7416, 7420, 7603, 7604 and 7607 of this title and any other enforcement provisions of this chapter, as a request made by the Administrator under section 7414 of this title and may be enforced by the Chairperson of the Board or by the Administrator as provided in such section.

(P) The Administrator shall provide to the Board such support and facilities as may be necessary for operation of the Board.

(Q) Consistent with subsection[8] (G) and section 7414(c) of this title any records, reports or information obtained by the Board shall be available to the Administrator, the Secretary of Labor, the Congress and the public, except that upon a showing satisfactory to the Board by any person that records, reports, or information, or particular part thereof (other than release or emissions data) to which the Board has access, if made public, is likely to cause substantial harm to the person's competitive position, the Board shall consider such record, report, or information or particular portion thereof confidential in accordance with section 1905 of title 18, except that such record, report, or information may be disclosed to other officers, employees, and authorized representatives of the United States concerned with carrying out this chapter or when relevant under any proceeding under this chapter. This subparagraph does not constitute authority to withhold records, reports, or information from the Congress.

(R) Whenever the Board submits or transmits any budget estimate, budget request, supplemental budget request, or other budget information, legislative recommendation, prepared testimony for congressional hearings, recommendation or study to the President, the Secretary of Labor, the Administrator, or the Director of the Office of Management and Budget, it shall concurrently transmit a copy thereof to the Congress. No report of the Board shall be subject to review by the Administrator or any Federal agency or to judicial review in any court. No officer or agency of the United States shall have authority to require the Board to submit its budget requests or estimates, legislative recommendations, prepared testimony, comments, recommendations or reports to any officer or agency of the United States for approval or review prior to the submission of such recommendations, testimony, comments or reports to the Congress. In the performance of their functions as established by this chapter, the members, officers and employees of the Board shall not be responsible to or subject to supervision or direction, in carrying out any duties under this subsection, of any officer or employee or agent of the Environmental Protection Agency, the Department of Labor or any other agency of the United States except that the President may remove any member, officer or employee of the Board for inefficiency, neglect of duty or malfeasance in office. Nothing in this section shall affect the application of title 5 to officers or employees of the Board.

(S) The Board shall submit an annual report to the President and to the Congress which shall include, but not be limited to, information on accidental releases which have been investigated by or reported to the Board during the previous year, recommendations for legislative or administrative action which the Board has made, the actions which have been taken by the Administrator or the Secretary of Labor or the heads of other agencies to implement such recommendations, an identification of priorities for study and investigation in the succeeding year, progress in the development of risk-reduction technologies and the response to and implementation of significant research findings on chemical safety in the public and private sector.

(7) Accident prevention

(A) In order to prevent accidental releases of regulated substances, the Administrator is authorized to promulgate release prevention, detection, and correction requirements which may include monitoring, record-keeping, reporting, training, vapor recovery, secondary containment, and other design, equipment, work practice, and operational requirements. Regulations promulgated under this paragraph may make distinctions between various types, classes, and kinds of facilities, devices and systems taking into consideration factors including, but not limited to, the size, location, process, process controls, quantity of substances handled, potency of substances, and response capabilities present at any stationary source. Regulations promulgated pursuant to this subparagraph shall have an effective date, as determined by the Administrator, assuring compliance as expeditiously as practicable.

(B)(i) Within 3 years after November 15, 1990, the Administrator shall promulgate reason-

[8] So in original. Probably should be ''subparagraph''.

able regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for response to such releases by the owners or operators of the sources of such releases. The Administrator shall utilize the expertise of the Secretaries of Transportation and Labor in promulgating such regulations. As appropriate, such regulations shall cover the use, operation, repair, replacement, and maintenance of equipment to monitor, detect, inspect, and control such releases, including training of persons in the use and maintenance of such equipment and in the conduct of periodic inspections. The regulations shall include procedures and measures for emergency response after an accidental release of a regulated substance in order to protect human health and the environment. The regulations shall cover storage, as well as operations. The regulations shall, as appropriate, recognize differences in size, operations, processes, class and categories of sources and the voluntary actions of such sources to prevent such releases and respond to such releases. The regulations shall be applicable to a stationary source 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source in more than threshold amounts is first listed under paragraph (3), whichever is later.

(ii) The regulations under this subparagraph shall require the owner or operator of stationary sources at which a regulated substance is present in more than a threshold quantity to prepare and implement a risk management plan to detect and prevent or minimize accidental releases of such substances from the stationary source, and to provide a prompt emergency response to any such releases in order to protect human health and the environment. Such plan shall provide for compliance with the requirements of this subsection and shall also include each of the following:

(I) a hazard assessment to assess the potential effects of an accidental release of any regulated substance. This assessment shall include an estimate of potential release quantities and a determination of downwind effects, including potential exposures to affected populations. Such assessment shall include a previous release history of the past 5 years, including the size, concentration, and duration of releases, and shall include an evaluation of worst case accidental releases;

(II) a program for preventing accidental releases of regulated substances, including safety precautions and maintenance, monitoring and employee training measures to be used at the source; and

(III) a response program providing for specific actions to be taken in response to an accidental release of a regulated substance so as to protect human health and the environment, including procedures for informing the public and local agencies responsible for responding to accidental releases, emergency health care, and employee training measures.

At the time regulations are promulgated under this subparagraph, the Administrator shall promulgate guidelines to assist stationary sources in the preparation of risk management plans. The guidelines shall, to the extent practicable, include model risk management plans.

(iii) The owner or operator of each stationary source covered by clause (ii) shall register a risk management plan prepared under this subparagraph with the Administrator before the effective date of regulations under clause (i) in such form and manner as the Administrator shall, by rule, require. Plans prepared pursuant to this subparagraph shall also be submitted to the Chemical Safety and Hazard Investigation Board, to the State in which the stationary source is located, and to any local agency or entity having responsibility for planning for or responding to accidental releases which may occur at such source, and shall be available to the public under section 7414(c) of this title. The Administrator shall establish, by rule, an auditing system to regularly review and, if necessary, require revision in risk management plans to assure that the plans comply with this subparagraph. Each such plan shall be updated periodically as required by the Administrator, by rule.

(C) Any regulations promulgated pursuant to this subsection shall to the maximum extent practicable, consistent with this subsection, be consistent with the recommendations and standards established by the American Society of Mechanical Engineers (ASME), the American National Standards Institute (ANSI) or the American Society of Testing Materials (ASTM). The Administrator shall take into consideration the concerns of small business in promulgating regulations under this subsection.

(D) In carrying out the authority of this paragraph, the Administrator shall consult with the Secretary of Labor and the Secretary of Transportation and shall coordinate any requirements under this paragraph with any requirements established for comparable purposes by the Occupational Safety and Health Administration or the Department of Transportation. Nothing in this subsection shall be interpreted, construed or applied to impose requirements affecting, or to grant the Administrator, the Chemical Safety and Hazard Investigation Board, or any other agency any authority to regulate (including requirements for hazard assessment), the accidental release of radionuclides arising from the construction and operation of facilities licensed by the Nuclear Regulatory Commission.

(E) After the effective date of any regulation or requirement imposed under this subsection, it shall be unlawful for any person to operate any stationary source subject to such regulation or requirement in violation of such regulation or requirement. Each regulation or requirement under this subsection shall for purposes of sections 7413, 7414, 7416, 7420, 7604, and 7607 of this title and other enforcement provisions of this chapter, be treated as a standard in effect under subsection (d).

(F) Notwithstanding the provisions of subchapter V or this section, no stationary source

shall be required to apply for, or operate pursuant to, a permit issued under such subchapter solely because such source is subject to regulations or requirements under this subsection.

(G) In exercising any authority under this subsection, the Administrator shall not, for purposes of section 653(b)(1) of title 29, be deemed to be exercising statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health.

(H) PUBLIC ACCESS TO OFF-SITE CONSEQUENCE ANALYSIS INFORMATION.—

(i) DEFINITIONS.—In this subparagraph:

(I) COVERED PERSON.—The term ''covered person'' means—

(aa) an officer or employee of the United States;

(bb) an officer or employee of an agent or contractor of the Federal Government;

(cc) an officer or employee of a State or local government;

(dd) an officer or employee of an agent or contractor of a State or local government;

(ee) an individual affiliated with an entity that has been given, by a State or local government, responsibility for preventing, planning for, or responding to accidental releases;

(ff) an officer or employee or an agent or contractor of an entity described in item (ee); and

(gg) a qualified researcher under clause (vii).

(II) OFFICIAL USE.—The term ''official use'' means an action of a Federal, State, or local government agency or an entity referred to in subclause (I)(ee) intended to carry out a function relevant to preventing, planning for, or responding to accidental releases.

(III) OFF-SITE CONSEQUENCE ANALYSIS INFORMATION.—The term ''off-site consequence analysis information'' means those portions of a risk management plan, excluding the executive summary of the plan, consisting of an evaluation of 1 or more worst-case release scenarios or alternative release scenarios, and any electronic data base created by the Administrator from those portions.

(IV) RISK MANAGEMENT PLAN.—The term ''risk management plan'' means a risk management plan submitted to the Administrator by an owner or operator of a stationary source under subparagraph (B)(iii).

(ii) REGULATIONS.—Not later than 1 year after August 5, 1999, the President shall—

(I) assess—

(aa) the increased risk of terrorist and other criminal activity associated with the posting of off-site consequence analysis information on the Internet; and

(bb) the incentives created by public disclosure of off-site consequence analysis information for reduction in the risk of accidental releases; and

(II) based on the assessment under subclause (I), promulgate regulations governing the distribution of off-site consequence analysis information in a manner that, in the opinion of the President, minimizes the likelihood of accidental releases and the risk described in subclause (I)(aa) and the likelihood of harm to public health and welfare, and—

(aa) allows access by any member of the public to paper copies of off-site consequence analysis information for a limited number of stationary sources located anywhere in the United States, without any geographical restriction;

(bb) allows other public access to off-site consequence analysis information as appropriate;

(cc) allows access for official use by a covered person described in any of items (cc) through (ff) of clause (i)(I) (referred to in this subclause as a ''State or local covered person'') to off-site consequence analysis information relating to stationary sources located in the person's State;

(dd) allows a State or local covered person to provide, for official use, off-site consequence analysis information relating to stationary sources located in the person's State to a State or local covered person in a contiguous State; and

(ee) allows a State or local covered person to obtain for official use, by request to the Administrator, off-site consequence analysis information that is not available to the person under item (cc).

(iii) AVAILABILITY UNDER FREEDOM OF INFORMATION ACT.—

(I) FIRST YEAR.—Off-site consequence analysis information, and any ranking of stationary sources derived from the information, shall not be made available under section 552 of title 5 during the 1-year period beginning on August 5, 1999.

(II) AFTER FIRST YEAR.—If the regulations under clause (ii) are promulgated on or before the end of the period described in subclause (I), off-site consequence analysis information covered by the regulations, and any ranking of stationary sources derived from the information, shall not be made available under section 552 of title 5 after the end of that period.

(III) APPLICABILITY.—Subclauses (I) and (II) apply to off-site consequence analysis information submitted to the Administrator before, on, or after August 5, 1999.

(iv) AVAILABILITY OF INFORMATION DURING TRANSITION PERIOD.—The Administrator shall make off-site consequence analysis information available to covered persons for official use in a manner that meets the requirements of items (cc) through (ee) of clause (ii)(II), and to the public in a form that does not make available any information concerning the identity or location of stationary sources, during the period—

(I) beginning on August 5, 1999; and

(II) ending on the earlier of the date of promulgation of the regulations under clause (ii) or the date that is 1 year after August 5, 1999.

(v) PROHIBITION ON UNAUTHORIZED DISCLOSURE OF INFORMATION BY COVERED PERSONS.—

(I) IN GENERAL.—Beginning on August 5, 1999, a covered person shall not disclose to the public off-site consequence analysis information in any form, or any statewide or national ranking of identified stationary sources derived from such information, except as authorized by this subparagraph (including the regulations promulgated under clause (ii)). After the end of the 1-year period beginning on August 5, 1999, if regulations have not been promulgated under clause (ii), the preceding sentence shall not apply.

(II) CRIMINAL PENALTIES.—Notwithstanding section 7413 of this title, a covered person that willfully violates a restriction or prohibition established by this subparagraph (including the regulations promulgated under clause (ii)) shall, upon conviction, be fined for an infraction under section 3571 of title 18 (but shall not be subject to imprisonment) for each unauthorized disclosure of off-site consequence analysis information, except that subsection (d) of such section 3571 shall not apply to a case in which the offense results in pecuniary loss unless the defendant knew that such loss would occur. The disclosure of off-site consequence analysis information for each specific stationary source shall be considered a separate offense. The total of all penalties that may be imposed on a single person or organization under this item shall not exceed $1,000,000 for violations committed during any 1 calendar year.

(III) APPLICABILITY.—If the owner or operator of a stationary source makes off-site consequence analysis information relating to that stationary source available to the public without restriction—

(aa) subclauses (I) and (II) shall not apply with respect to the information; and

(bb) the owner or operator shall notify the Administrator of the public availability of the information.

(IV) LIST.—The Administrator shall maintain and make publicly available a list of all stationary sources that have provided notification under subclause (III)(bb).

(vi) NOTICE.—The Administrator shall provide notice of the definition of official use as provided in clause (i)(III)[9] and examples of actions that would and would not meet that definition, and notice of the restrictions on further dissemination and the penalties established by this chapter to each covered person who receives off-site consequence analysis information under clause (iv) and each covered person who receives off-site consequence analysis information for an official use under the regulations promulgated under clause (ii).

(vii) QUALIFIED RESEARCHERS.—

(I) IN GENERAL.—Not later than 180 days after August 5, 1999, the Administrator, in consultation with the Attorney General, shall develop and implement a system for providing off-site consequence analysis information, including facility identification, to any qualified researcher, including a qualified researcher from industry or any public interest group.

(II) LIMITATION ON DISSEMINATION.—The system shall not allow the researcher to disseminate, or make available on the Internet, the off-site consequence analysis information, or any portion of the off-site consequence analysis information, received under this clause.

(viii) READ-ONLY INFORMATION TECHNOLOGY SYSTEM.—In consultation with the Attorney General and the heads of other appropriate Federal agencies, the Administrator shall establish an information technology system that provides for the availability to the public of off-site consequence analysis information by means of a central data base under the control of the Federal Government that contains information that users may read, but that provides no means by which an electronic or mechanical copy of the information may be made.

(ix) VOLUNTARY INDUSTRY ACCIDENT PREVENTION STANDARDS.—The Environmental Protection Agency, the Department of Justice, and other appropriate agencies may provide technical assistance to owners and operators of stationary sources and participate in the development of voluntary industry standards that will help achieve the objectives set forth in paragraph (1).

(x) EFFECT ON STATE OR LOCAL LAW.—

(I) IN GENERAL.—Subject to subclause (II), this subparagraph (including the regulations promulgated under this subparagraph) shall supersede any provision of State or local law that is inconsistent with this subparagraph (including the regulations).

(II) AVAILABILITY OF INFORMATION UNDER STATE LAW.—Nothing in this subparagraph precludes a State from making available data on the off-site consequences of chemical releases collected in accordance with State law.

(xi) REPORT.—

(I) IN GENERAL.—Not later than 3 years after August 5, 1999, the Attorney General, in consultation with appropriate State, local, and Federal Government agencies, affected industry, and the public, shall submit to Congress a report that describes the extent to which regulations promulgated under this paragraph have resulted in actions, including the design and maintenance of safe facilities, that are effective in detecting, preventing, and minimizing the consequences of releases of regulated substances that may be caused by criminal

[9] So in original. Probably should be ''(i)(II)''.

activity. As part of this report, the Attorney General, using available data to the extent possible, and a sampling of covered stationary sources selected at the discretion of the Attorney General, and in consultation with appropriate State, local, and Federal governmental agencies, affected industry, and the public, shall review the vulnerability of covered stationary sources to criminal and terrorist activity, current industry practices regarding site security, and security of transportation of regulated substances. The Attorney General shall submit this report, containing the results of the review, together with recommendations, if any, for reducing vulnerability of covered stationary sources to criminal and terrorist activity, to the Committee on Commerce of the United States House of Representatives and the Committee on Environment and Public Works of the United States Senate and other relevant committees of Congress.

(II) INTERIM REPORT.—Not later than 12 months after August 5, 1999, the Attorney General shall submit to the Committee on Commerce of the United States House of Representatives and the Committee on Environment and Public Works of the United States Senate, and other relevant committees of Congress, an interim report that includes, at a minimum—

(aa) the preliminary findings under subclause (I);

(bb) the methods used to develop the findings; and

(cc) an explanation of the activities expected to occur that could cause the findings of the report under subclause (I) to be different than the preliminary findings.

(III) AVAILABILITY OF INFORMATION.—Information that is developed by the Attorney General or requested by the Attorney General and received from a covered stationary source for the purpose of conducting the review under subclauses (I) and (II) shall be exempt from disclosure under section 552 of title 5 if such information would pose a threat to national security.

(xii) SCOPE.—This subparagraph—

(I) applies only to covered persons; and

(II) does not restrict the dissemination of off-site consequence analysis information by any covered person in any manner or form except in the form of a risk management plan or an electronic data base created by the Administrator from off-site consequence analysis information.

(xiii) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator and the Attorney General such sums as are necessary to carry out this subparagraph (including the regulations promulgated under clause (ii)), to remain available until expended.

(8) Research on hazard assessments

The Administrator may collect and publish information on accident scenarios and consequences covering a range of possible events for substances listed under paragraph (3). The Administrator shall establish a program of long-term research to develop and disseminate information on methods and techniques for hazard assessment which may be useful in improving and validating the procedures employed in the preparation of hazard assessments under this subsection.

(9) Order authority

(A) In addition to any other action taken, when the Administrator determines that there may be an imminent and substantial endangerment to the human health or welfare or the environment because of an actual or threatened accidental release of a regulated substance, the Administrator may secure such relief as may be necessary to abate such danger or threat, and the district court of the United States in the district in which the threat occurs shall have jurisdiction to grant such relief as the public interest and the equities of the case may require. The Administrator may also, after notice to the State in which the stationary source is located, take other action under this paragraph including, but not limited to, issuing such orders as may be necessary to protect human health. The Administrator shall take action under section 7603 of this title rather than this paragraph whenever the authority of such section is adequate to protect human health and the environment.

(B) Orders issued pursuant to this paragraph may be enforced in an action brought in the appropriate United States district court as if the order were issued under section 7603 of this title.

(C) Within 180 days after November 15, 1990, the Administrator shall publish guidance for using the order authorities established by this paragraph. Such guidance shall provide for the coordinated use of the authorities of this paragraph with other emergency powers authorized by section 9606 of this title, sections 311(c), 308, 309 and 504(a) of the Federal Water Pollution Control Act [33 U.S.C. 1321(c), 1318, 1319, 1364(a)], sections 3007, 3008, 3013, and 7003 of the Solid Waste Disposal Act [42 U.S.C. 6927, 6928, 6934, 6973], sections 1445 and 1431 of the Safe Drinking Water Act [42 U.S.C. 300j–4, 300i], sections 5 and 7 of the Toxic Substances Control Act [15 U.S.C. 2604, 2606], and sections 7413, 7414, and 7603 of this title.

(10) Presidential review

The President shall conduct a review of release prevention, mitigation and response authorities of the various Federal agencies and shall clarify and coordinate agency responsibilities to assure the most effective and efficient implementation of such authorities and to identify any deficiencies in authority or resources which may exist. The President may utilize the resources and solicit the recommendations of the Chemical Safety and Hazard Investigation Board in conducting such review. At the conclusion of such review, but not later than 24 months after November 15, 1990, the President shall transmit a message to the Congress on the release prevention, mitigation and response activities of the Federal Govern-

ment making such recommendations for change in law as the President may deem appropriate. Nothing in this paragraph shall be interpreted, construed or applied to authorize the President to modify or reassign release prevention, mitigation or response authorities otherwise established by law.

(11) State authority

Nothing in this subsection shall preclude, deny or limit any right of a State or political subdivision thereof to adopt or enforce any regulation, requirement, limitation or standard (including any procedural requirement) that is more stringent than a regulation, requirement, limitation or standard in effect under this subsection or that applies to a substance not subject to this subsection.

(s) Periodic report

Not later than January 15, 1993 and every 3 years thereafter, the Administrator shall prepare and transmit to the Congress a comprehensive report on the measures taken by the Agency and by the States to implement the provisions of this section. The Administrator shall maintain a database on pollutants and sources subject to the provisions of this section and shall include aggregate information from the database in each annual report. The report shall include, but not be limited to—

(1) a status report on standard-setting under subsections (d) and (f);

(2) information with respect to compliance with such standards including the costs of compliance experienced by sources in various categories and subcategories;

(3) development and implementation of the national urban air toxics program; and

(4) recommendations of the Chemical Safety and Hazard Investigation Board with respect to the prevention and mitigation of accidental releases.

(July 14, 1955, ch. 360, title I, §112, as added Pub. L. 91–604, §4(a), Dec. 31, 1970, 84 Stat. 1685; amended Pub. L. 95–95, title I, §§109(d)(2), 110, title IV, §401(c), Aug. 7, 1977, 91 Stat. 701, 703, 791; Pub. L. 95–623, §13(b), Nov. 9, 1978, 92 Stat. 3458; Pub. L. 101–549, title III, §301, Nov. 15, 1990, 104 Stat. 2531; Pub. L. 102–187, Dec. 4, 1991, 105 Stat. 1285; Pub. L. 105–362, title IV, §402(b), Nov. 10, 1998, 112 Stat. 3283; Pub. L. 106–40, §§2, 3(a), Aug. 5, 1999, 113 Stat. 207, 208.)

REFERENCES IN TEXT

The date of enactment, referred to in subsec. (a)(11), probably means the date of enactment of Pub. L. 101–549, which amended this section generally and was approved Nov. 15, 1990.

The Atomic Energy Act, referred to in subsec. (d)(9), probably means the Atomic Energy Act of 1954, act Aug. 1, 1946, ch. 724, as added by act Aug. 30, 1954, ch. 1073, §1, 68 Stat. 919, which is classified principally to chapter 23 (§2011 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 2011 of this title and Tables.

The Federal Water Pollution Control Act, referred to in subsecs. (e)(5) and (m)(1)(D), (5)(D), is act June 30, 1948, ch. 758, as amended generally by Pub. L. 92–500, §2, Oct. 18, 1972, 86 Stat. 816, which is classified generally to chapter 26 (§1251 et seq.) of Title 33, Navigation and Navigable Waters. Title II of the Act is classified generally to subchapter II (§1281 et seq.) of chapter 26 of Title 33. For complete classification of this Act to the Code, see Short Title note set out under section 1251 of Title 33 and Tables.

The Toxic Substances Control Act, referred to in subsec. (k)(3)(C), is Pub. L. 94–469, Oct. 11, 1976, 90 Stat. 2003, as amended, which is classified generally to chapter 53 (§2601 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 2601 of Title 15 and Tables.

The Federal Insecticide, Fungicide and Rodenticide Act, referred to in subsec. (k)(3)(C), probably means the Federal Insecticide, Fungicide, and Rodenticide Act, act June 25, 1947, ch. 125, as amended generally by Pub. L. 92–516, Oct. 21, 1972, 86 Stat. 973, which is classified generally to subchapter II (§136 et seq.) of chapter 6 of Title 7, Agriculture. For complete classification of this Act to the Code, see Short Title note set out under section 136 of Title 7 and Tables.

The Resource Conservation and Recovery Act, referred to in subsec. (k)(3)(C), probably means the Resource Conservation and Recovery Act of 1976, Pub. L. 94–580, Oct. 21, 1976, 90 Stat. 2796, as amended, which is classified generally to chapter 82 (§6901 et seq.) of this title. For complete classification of this Act to the Code, see Short Title of 1976 Amendment note set out under section 6901 of this title and Tables.

The Safe Drinking Water Act, referred to in subsec. (m)(1)(D), (5)(D), is title XIV of act July 1, 1944, as added Dec. 16, 1974, Pub. L. 93–523, §2(a), 88 Stat. 1660, as amended, which is classified generally to subchapter XII (§300f et seq.) of chapter 6A of this title. For complete classification of this Act to the Code, see Short Title note set out under section 201 of this title and Tables.

The Solid Waste Disposal Act, referred to in subsec. (n)(7), is title II of Pub. L. 89–272, Oct. 20, 1965, 79 Stat. 997, as amended generally by Pub. L. 94–580, §2, Oct. 21, 1976, 90 Stat. 2795. Subtitle C of the Act is classified generally to subchapter III (§6921 et seq.) of chapter 82 of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6901 of this title and Tables.

Section 303 of the Clean Air Act Amendments of 1990, referred to in subsec. (*o*)(4), probably means section 303 of Pub. L. 101–549, which is set out below.

The Clean Air Act Amendments of 1990, referred to in subsec. (q)(1)–(3), probably means Pub. L. 101–549, Nov. 15, 1990, 104 Stat. 2399. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

The Emergency Planning and Community Right-To-Know Act of 1986, referred to in subsec. (r)(3), is title III of Pub. L. 99–499, Oct. 17, 1986, 100 Stat. 1728, which is classified generally to chapter 116 (§11001 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 11001 of this title and Tables.

The Occupational Safety and Health Act, referred to in subsec. (r)(6)(C)(ii), (K), (L), probably means the Occupational Safety and Health Act of 1970, Pub. L. 91–596, Dec. 29, 1970, 84 Stat. 1590, as amended, which is classified principally to chapter 15 (§651 et seq.) of Title 29, Labor. For complete classification of this Act to the Code, see Short Title note set out under section 651 of Title 29 and Tables.

CODIFICATION

In subsec. (r)(6)(N), ''section 6101 of title 41'' substituted for ''section 5 of title 41 of the United States Code'' on authority of Pub. L. 111–350, §6(c), Jan. 4, 2011, 124 Stat. 3854, which Act enacted Title 41, Public Contracts.

Section was formerly classified to section 1857c-7 of this title.

AMENDMENTS

1999—Subsec. (r)(2)(D). Pub. L. 106–40, §2(5), added subpar. (D).

Subsec. (r)(4). Pub. L. 106–40, § 2, substituted ''Administrator—

''(A) shall consider—''

for ''Administrator shall consider each of the following criteria—'' in introductory provisions, redesignated subpars. (A) to (C) as cls. (i) to (iii), respectively, of subpar. (A) and added subpar. (B).

Subsec. (r)(7)(H). Pub. L. 106–40, § 3(a), added subpar. (H).

1998—Subsec. (n)(2)(C). Pub. L. 105–362 substituted ''On completion of the study, the Secretary shall submit to Congress a report on the results of the study and'' for ''The Secretary shall prepare annual reports to Congress on the status of the research program and at the completion of the study''.

1991—Subsec. (b)(1). Pub. L. 102–187 struck out ''7783064 Hydrogen sulfide'' from list of pollutants.

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), definitions; in subsec. (b), list of hazardous air pollutants, emission standards, and pollution control techniques; in subsec. (c), prohibited acts and exemption; in subsec. (d), State implementation and enforcement; and in subsec. (e), design, equipment, work practice, and operational standards.

1978—Subsec. (e)(5). Pub. L. 95–623 added par. (5).

1977—Subsec. (a)(1). Pub. L. 95–95, § 401(c), substituted ''causes, or contributes to, air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness'' for ''may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness''.

Subsec. (d)(1). Pub. L. 95–95, § 109(d)(2), struck out ''(except with respect to stationary sources owned or operated by the United States)'' after ''implement and enforce such standards''.

Subsec. (e). Pub. L. 95–95, § 110, added subsec. (e).

CHANGE OF NAME

Committee on Energy and Commerce of House of Representatives treated as referring to Committee on Commerce of House of Representatives by section 1(a) of Pub. L. 104–14, set out as a note preceding section 21 of Title 2, The Congress. Committee on Commerce of House of Representatives changed to Committee on Energy and Commerce of House of Representatives, and jurisdiction over matters relating to securities and exchanges and insurance generally transferred to Committee on Financial Services of House of Representatives by House Resolution No. 5, One Hundred Seventh Congress, Jan. 3, 2001.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective May 15, 2000, of provisions of law requiring submittal to Congress of any annual, semiannual, or other regular periodic report listed in House Document No. 103–7 (in which reports required under subsecs. (m)(5), (r)(6)(C)(ii), and (s) of this section are listed, respectively, as the 8th item on page 162, the 9th item on page 198, and the 9th item on page 162), see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

DELEGATION OF AUTHORITY

Memorandum of President of the United States, Aug. 19, 1993, 58 F.R. 52397, provided:

Memorandum for the Administrator of the Environmental Protection Agency

WHEREAS, the Environmental Protection Agency, the agencies and departments that are members of the National Response Team (authorized under Executive Order No. 12580, 52 Fed. Reg. 2923 (1987) [42 U.S.C. 9615 note]), and other Federal agencies and departments undertake emergency release prevention, mitigation, and response activities pursuant to various authorities;

By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 112(r)(10) of the Clean Air Act (the ''Act'') (section 7412(r)(10) of title 42 of the United States Code) and section 301 of title 3 of the United States Code, and in order to provide for the delegation of certain functions under the Act [42 U.S.C. 7401 et seq.], I hereby:

(1) Authorize you, in coordination with agencies and departments that are members of the National Response Team and other appropriate agencies and departments, to conduct a review of release prevention, mitigation, and response authorities of Federal agencies in order to assure the most effective and efficient implementation of such authorities and to identify any deficiencies in authority or resources that may exist, to the extent such review is required by section 112(r)(10) of the Act; and

(2) Authorize you, in coordination with agencies and departments that are members of the National Response Team and other appropriate agencies and departments, to prepare and transmit a message to the Congress concerning the release prevention, mitigation, and response activities of the Federal Government with such recommendations for change in law as you deem appropriate, to the extent such message is required by section 112(r)(10) of the Act.

The authority delegated by this memorandum may be further redelegated within the Environmental Protection Agency.

You are hereby authorized and directed to publish this memorandum in the Federal Register.

WILLIAM J. CLINTON.

Memorandum of President of the United States, Jan. 27, 2000, 65 F.R. 8631, provided:

Memorandum for the Attorney General[,] the Administrator of the Environmental Protection Agency[, and] the Director of the Office of Management and Budget

By the authority vested in me as President by the Constitution and laws of the United States of America, including section 112(r)(7)(H) of the Clean Air Act (''Act'') (42 U.S.C. 7412(r)(7)(H)), as added by section 3 of the Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (Public Law 106–40), and section 301 of title 3, United States Code, I hereby delegate to:

(1) the Attorney General the authority vested in the President under section 112(r)(7)(H)(ii)(I)(aa) of the Act

to assess the increased risk of terrorist and other criminal activity associated with the posting of off-site consequence analysis information on the Internet;

(2) the Administrator of the Environmental Protection Agency (EPA) the authority vested in the President under section 112(r)(7)(H)(ii)(I)(bb) of the Act to assess the incentives created by public disclosure of off-site consequence analysis information for reduction in the risk of accidental releases; and

(3) the Attorney General and the Administrator of EPA, jointly, the authority vested in the President under section 112(r)(7)(H)(ii)(II) of the Act to promulgate regulations, based on these assessments, governing the distribution of off-site consequence analysis information. These regulations, in proposed and final form, shall be subject to review and approval by the Director of the Office of Management and Budget.

The Administrator of EPA is authorized and directed to publish this memorandum in the Federal Register.

WILLIAM J. CLINTON.

REPORTS

Pub. L. 106–40, §3(b), Aug. 5, 1999, 113 Stat. 213, provided that:

''(1) DEFINITION OF ACCIDENTAL RELEASE.—In this subsection, the term 'accidental release' has the meaning given the term in section 112(r)(2) of the Clean Air Act (42 U.S.C. 7412(r)(2)).

''(2) REPORT ON STATUS OF CERTAIN AMENDMENTS.—Not later than 2 years after the date of enactment of this Act [Aug. 5, 1999], the Comptroller General of the United States shall submit to Congress a report on the status of the development of amendments to the National Fire Protection Association Code for Liquefied Petroleum Gas that will result in the provision of information to local emergency response personnel concerning the off-site effects of accidental releases of substances exempted from listing under section 112(r)(4)(B) of the Clean Air Act (as added by section 3).

''(3) REPORT ON COMPLIANCE WITH CERTAIN INFORMATION SUBMISSION REQUIREMENTS.—Not later than 3 years after the date of enactment of this Act, the Comptroller General of the United States shall submit to Congress a report that—

''(A) describes the level of compliance with Federal and State requirements relating to the submission to local emergency response personnel of information intended to help the local emergency response personnel respond to chemical accidents or related environmental or public health threats; and

''(B) contains an analysis of the adequacy of the information required to be submitted and the efficacy of the methods for delivering the information to local emergency response personnel.''

REEVALUATION OF REGULATIONS

Pub. L. 106–40, §3(c), Aug. 5, 1999, 113 Stat. 213, provided that: ''The President shall reevaluate the regulations promulgated under this section within 6 years after the enactment of this Act [Aug. 5, 1999]. If the President determines not to modify such regulations, the President shall publish a notice in the Federal Register stating that such reevaluation has been completed and that a determination has been made not to modify the regulations. Such notice shall include an explanation of the basis of such decision.''

PUBLIC MEETING DURING MORATORIUM PERIOD

Pub. L. 106–40, §4, Aug. 5, 1999, 113 Stat. 214, provided that:

''(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act [Aug. 5, 1999], each owner or operator of a stationary source covered by section 112(r)(7)(B)(ii) of the Clean Air Act [42 U.S.C. 7412(r)(7)(B)(ii)] shall convene a public meeting, after reasonable public notice, in order to describe and discuss the local implications of the risk management plan submitted by the stationary source pursuant to section 112(r)(7)(B)(iii) of the Clean Air Act, including a summary of the off-site consequence analysis portion of the plan. Two or more stationary sources may conduct a joint meeting. In lieu of conducting such a meeting, small business stationary sources as defined in section 507(c)(1) of the Clean Air Act [42 U.S.C. 7661f(c)(1)] may comply with this section by publicly posting a summary of the off-site consequence analysis information for their facility not later than 180 days after the enactment of this Act. Not later than 10 months after the date of enactment of this Act, each such owner or operator shall send a certification to the director of the Federal Bureau of Investigation stating that such meeting has been held, or that such summary has been posted, within 1 year prior to, or within 6 months after, the date of the enactment of this Act. This section shall not apply to sources that employ only Program 1 processes within the meaning of regulations promulgated under section 112(r)(7)(B)(i) of the Clean Air Act.

''(b) ENFORCEMENT.—The Administrator of the Environmental Protection Agency may bring an action in the appropriate United States district court against any person who fails or refuses to comply with the requirements of this section, and such court may issue such orders, and take such other actions, as may be necessary to require compliance with such requirements.''

RISK ASSESSMENT AND MANAGEMENT COMMISSION

Pub. L. 101–549, title III, §303, Nov. 15, 1990, 104 Stat. 2574, provided that:

''(a) ESTABLISHMENT.—There is hereby established a Risk Assessment and Management Commission (hereafter referred to in this section as the 'Commission'), which shall commence proceedings not later than 18 months after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990] and which shall make a full investigation of the policy implications and appropriate uses of risk assessment and risk management in regulatory programs under various Federal laws to prevent cancer and other chronic human health effects which may result from exposure to hazardous substances.

''(b) CHARGE.—The Commission shall consider—

''(1) the report of the National Academy of Sciences authorized by section 112(*o*) of the Clean Air Act [42 U.S.C. 7412(*o*)], the use and limitations of risk assessment in establishing emission or effluent standards, ambient standards, exposure standards, acceptable concentration levels, tolerances or other environmental criteria for hazardous substances that present a risk of carcinogenic effects or other chronic health effects and the suitability of risk assessment for such purposes;

''(2) the most appropriate methods for measuring and describing cancer risks or risks of other chronic health effects from exposure to hazardous substances considering such alternative approaches as the lifetime risk of cancer or other effects to the individual or individuals most exposed to emissions from a source or sources on both an actual and worst case basis, the range of such risks, the total number of health effects avoided by exposure reductions, effluent standards, ambient standards, exposures standards, acceptable concentration levels, tolerances and other environmental criteria, reductions in the number of persons exposed at various levels of risk, the incidence of cancer, and other public health factors;

''(3) methods to reflect uncertainties in measurement and estimation techniques, the existence of synergistic or antagonistic effects among hazardous substances, the accuracy of extrapolating human health risks from animal exposure data, and the existence of unquantified direct or indirect effects on human health in risk assessment studies;

''(4) risk management policy issues including the use of lifetime cancer risks to individuals most exposed, incidence of cancer, the cost and technical feasibility of exposure reduction measures and the use of site-specific actual exposure information in setting emissions standards and other limitations applicable to sources of exposure to hazardous substances; and

''(5) and comment on the degree to which it is possible or desirable to develop a consistent risk assessment methodology, or a consistent standard of acceptable risk, among various Federal programs.

''(c) MEMBERSHIP.—Such Commission shall be composed of ten members who shall have knowledge or experience in fields of risk assessment or risk management, including three members to be appointed by the President, two members to be appointed by the Speaker of the House of Representatives, one member to be appointed by the Minority Leader of the House of Representatives, two members to be appointed by the Majority Leader of the Senate, one member to be appointed by the Minority Leader of the Senate, and one member to be appointed by the President of the National Academy of Sciences. Appointments shall be made not later than 18 months after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990].

''(d) ASSISTANCE FROM AGENCIES.—The Administrator of the Environmental Protection Agency and the heads of all other departments, agencies, and instrumentalities of the executive branch of the Federal Government shall, to the maximum extent practicable, assist the Commission in gathering such information as the Commission deems necessary to carry out this section subject to other provisions of law.

''(e) STAFF AND CONTRACTS.—

''(1) In the conduct of the study required by this section, the Commission is authorized to contract (in accordance with Federal contract law) with nongovernmental entities that are competent to perform research or investigations within the Commission's mandate, and to hold public hearings, forums, and workshops to enable full public participation.

''(2) The Commission may appoint and fix the pay of such staff as it deems necessary in accordance with the provisions of title 5, United States Code. The Commission may request the temporary assignment of personnel from the Environmental Protection Agency or other Federal agencies.

''(3) The members of the Commission who are not officers or employees of the United States, while attending conferences or meetings of the Commission or while otherwise serving at the request of the Chair, shall be entitled to receive compensation at a rate not in excess of the maximum rate of pay for Grade GS–18, as provided in the General Schedule under section 5332 of title 5 of the United States Code, including travel time, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence as authorized by law for persons in the Government service employed intermittently.

''(f) REPORT.—A report containing the results of all Commission studies and investigations under this section, together with any appropriate legislative recommendations or administrative recommendations, shall be made available to the public for comment not later than 42 months after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990] and shall be submitted to the President and to the Congress not later than 48 months after such date of enactment. In the report, the Commission shall make recommendations with respect to the appropriate use of risk assessment and risk management in Federal regulatory programs to prevent cancer or other chronic health effects which may result from exposure to hazardous substances. The Commission shall cease to exist upon the date determined by the Commission, but not later than 9 months after the submission of such report.

''(g) AUTHORIZATION.—There are authorized to be appropriated such sums as are necessary to carry out the activities of the Commission established by this section.''

[References in laws to the rates of pay for GS–16, 17, or 18, or to maximum rates of pay under the General Schedule, to be considered references to rates payable under specified sections of Title 5, Government Organization and Employees, see section 529 [title I, § 101(c)(1)] of Pub. L. 101–509, set out in a note under section 5376 of Title 5.]

FLEXIBLE IMPLEMENTATION OF THE MERCURY AND AIR TOXICS STANDARDS RULE

Memorandum of President of the United States, Dec. 21, 2011, 76 F.R. 80727, provided:

Memorandum for the Administrator of the Environmental Protection Agency

Today's issuance, by the Environmental Protection Agency (EPA), of the final Mercury and Air Toxics Standards rule for power plants (the ''MATS Rule'') represents a major step forward in my Administration's efforts to protect public health and the environment.

This rule, issued after careful consideration of public comments, prescribes standards under section 112 of the Clean Air Act to control emissions of mercury and other toxic air pollutants from power plants, which collectively are among the largest sources of such pollution in the United States. The EPA estimates that by substantially reducing emissions of pollutants that contribute to neurological damage, cancer, respiratory illnesses, and other health risks, the MATS Rule will produce major health benefits for millions of Americans—including children, older Americans, and other vulnerable populations. Consistent with Executive Order 13563 (Improving Regulation and Regulatory Review), the estimated benefits of the MATS Rule far exceed the estimated costs.

The MATS Rule can be implemented through the use of demonstrated, existing pollution control technologies. The United States is a global market leader in the design and manufacture of these technologies, and it is anticipated that U.S. firms and workers will provide much of the equipment and labor needed to meet the substantial investments in pollution control that the standards are expected to spur.

These new standards will promote the transition to a cleaner and more efficient U.S. electric power system. This system as a whole is critical infrastructure that plays a key role in the functioning of all facets of the U.S. economy, and maintaining its stability and reliability is of critical importance. It is therefore crucial that implementation of the MATS Rule proceed in a cost-effective manner that ensures electric reliability.

Analyses conducted by the EPA and the Department of Energy (DOE) indicate that the MATS Rule is not anticipated to compromise electric generating resource adequacy in any region of the country. The Clean Air Act offers a number of implementation flexibilities, and the EPA has a long and successful history of using those flexibilities to ensure a smooth transition to cleaner technologies.

The Clean Air Act provides 3 years from the effective date of the MATS Rule for sources to comply with its requirements. In addition, section 112(i)(3)(B) of the Act allows the issuance of a permit granting a source up to one additional year where necessary for the installation of controls. As you stated in the preamble to the MATS Rule, this additional fourth year should be broadly available to sources, consistent with the requirements of the law.

The EPA has concluded that 4 years should generally be sufficient to install the necessary emission control equipment, and DOE has issued analysis consistent with that conclusion. While more time is generally not expected to be needed, the Clean Air Act offers other important flexibilities as well. For example, section 113(a) of the Act provides the EPA with flexibility to bring sources into compliance over the course of an additional year, should unusual circumstances arise that warrant such flexibility.

To address any concerns with respect to electric reliability while assuring MATS' public health benefits, I direct you to take the following actions:

1. Building on the information and guidance that you have provided to the public, relevant stakeholders, and permitting authorities in the preamble of the MATS Rule, work with State and local permitting authorities to make the additional year for compliance with the

MATS Rule provided under section 112(i)(3)(B) of the Clean Air Act broadly available to sources, consistent with law, and to invoke this flexibility expeditiously where justified.

2. Promote early, coordinated, and orderly planning and execution of the measures needed to implement the MATS Rule while maintaining the reliability of the electric power system. Consistent with Executive Order 13563, this process should be designed to ''promote predictability and reduce uncertainty,'' and should include engagement and coordination with DOE, the Federal Energy Regulatory Commission, State utility regulators, Regional Transmission Organizations, the North American Electric Reliability Corporation and regional electric reliability organizations, other grid planning authorities, electric utilities, and other stakeholders, as appropriate.

3. Make available to the public, including relevant stakeholders, information concerning any anticipated use of authorities: (a) under section 112(i)(3)(B) of the Clean Air Act in the event that additional time to comply with the MATS Rule is necessary for the installation of technology; and (b) under section 113(a) of the Clean Air Act in the event that additional time to comply with the MATS Rule is necessary to address a specific and documented electric reliability issue. This information should describe the process for working with entities with relevant expertise to identify circumstances where electric reliability concerns might justify allowing additional time to comply.

This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

You are hereby authorized and directed to publish this memorandum in the Federal Register.

BARACK OBAMA.

§ 7413. Federal enforcement

(a) In general

(1) Order to comply with SIP

Whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of an applicable implementation plan or permit, the Administrator shall notify the person and the State in which the plan applies of such finding. At any time after the expiration of 30 days following the date on which such notice of a violation is issued, the Administrator may, without regard to the period of violation (subject to section 2462 of title 28)—

(A) issue an order requiring such person to comply with the requirements or prohibitions of such plan or permit,

(B) issue an administrative penalty order in accordance with subsection (d), or

(C) bring a civil action in accordance with subsection (b).

(2) State failure to enforce SIP or permit program

Whenever, on the basis of information available to the Administrator, the Administrator finds that violations of an applicable implementation plan or an approved permit program under subchapter V are so widespread that such violations appear to result from a failure of the State in which the plan or permit program applies to enforce the plan or permit program effectively, the Administrator shall so notify the State. In the case of a permit program, the notice shall be made in accordance with subchapter V. If the Administrator finds such failure extends beyond the 30th day after such notice (90 days in the case of such permit program), the Administrator shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such plan or permit program (hereafter referred to in this section as ''period of federally assumed enforcement''), the Administrator may enforce any requirement or prohibition of such plan or permit program with respect to any person by—

(A) issuing an order requiring such person to comply with such requirement or prohibition,

(B) issuing an administrative penalty order in accordance with subsection (d), or

(C) bringing a civil action in accordance with subsection (b).

(3) EPA enforcement of other requirements

Except for a requirement or prohibition enforceable under the preceding provisions of this subsection, whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any other requirement or prohibition of this subchapter, section 7603 of this title, subchapter IV–A, subchapter V, or subchapter VI, including, but not limited to, a requirement or prohibition of any rule, plan, order, waiver, or permit promulgated, issued, or approved under those provisions or subchapters, or for the payment of any fee owed to the United States under this chapter (other than subchapter II), the Administrator may—

(A) issue an administrative penalty order in accordance with subsection (d),

(B) issue an order requiring such person to comply with such requirement or prohibition,

(C) bring a civil action in accordance with subsection (b) or section 7605 of this title, or

(D) request the Attorney General to commence a criminal action in accordance with subsection (c).

(4) Requirements for orders

An order issued under this subsection (other than an order relating to a violation of section 7412 of this title) shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation. A copy of any order issued under this subsection shall be sent to the State air pollution control agency of any State in which the violation occurs. Any order issued under this subsection shall state with reasonable specificity the nature of the violation and specify a time for compliance which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1)) is issued to a corporation, a copy of

such order (or notice) shall be issued to appropriate corporate officers. An order issued under this subsection shall require the person to whom it was issued to comply with the requirement as expeditiously as practicable, but in no event longer than one year after the date the order was issued, and shall be nonrenewable. No order issued under this subsection shall prevent the State or the Administrator from assessing any penalties nor otherwise affect or limit the State's or the United States authority to enforce under other provisions of this chapter, nor affect any person's obligations to comply with any section of this chapter or with a term or condition of any permit or applicable implementation plan promulgated or approved under this chapter.

(5) Failure to comply with new source requirements

Whenever, on the basis of any available information, the Administrator finds that a State is not acting in compliance with any requirement or prohibition of the chapter relating to the construction of new sources or the modification of existing sources, the Administrator may—

(A) issue an order prohibiting the construction or modification of any major stationary source in any area to which such requirement applies;[1]

(B) issue an administrative penalty order in accordance with subsection (d), or

(C) bring a civil action under subsection (b).

Nothing in this subsection shall preclude the United States from commencing a criminal action under subsection (c) at any time for any such violation.

(b) Civil judicial enforcement

The Administrator shall, as appropriate, in the case of any person that is the owner or operator of an affected source, a major emitting facility, or a major stationary source, and may, in the case of any other person, commence a civil action for a permanent or temporary injunction, or to assess and recover a civil penalty of not more than $25,000 per day for each violation, or both, in any of the following instances:

(1) Whenever such person has violated, or is in violation of, any requirement or prohibition of an applicable implementation plan or permit. Such an action shall be commenced (A) during any period of federally assumed enforcement, or (B) more than 30 days following the date of the Administrator's notification under subsection (a)(1) that such person has violated, or is in violation of, such requirement or prohibition.

(2) Whenever such person has violated, or is in violation of, any other requirement or prohibition of this subchapter, section 7603 of this title, subchapter IV–A, subchapter V, or subchapter VI, including, but not limited to, a requirement or prohibition of any rule, order, waiver or permit promulgated, issued, or approved under this chapter, or for the payment of any fee owed the United States under this chapter (other than subchapter II).

(3) Whenever such person attempts to construct or modify a major stationary source in any area with respect to which a finding under subsection (a)(5) has been made.

Any action under this subsection may be brought in the district court of the United States for the district in which the violation is alleged to have occurred, or is occurring, or in which the defendant resides, or where the defendant's principal place of business is located, and such court shall have jurisdiction to restrain such violation, to require compliance, to assess such civil penalty, to collect any fees owed the United States under this chapter (other than subchapter II) and any noncompliance assessment and nonpayment penalty owed under section 7420 of this title, and to award any other appropriate relief. Notice of the commencement of such action shall be given to the appropriate State air pollution control agency. In the case of any action brought by the Administrator under this subsection, the court may award costs of litigation (including reasonable attorney and expert witness fees) to the party or parties against whom such action was brought if the court finds that such action was unreasonable.

(c) Criminal penalties

(1) Any person who knowingly violates any requirement or prohibition of an applicable implementation plan (during any period of federally assumed enforcement or more than 30 days after having been notified under subsection (a)(1) by the Administrator that such person is violating such requirement or prohibition), any order under subsection (a) of this section, requirement or prohibition of section 7411(e) of this title (relating to new source performance standards), section 7412 of this title, section 7414 of this title (relating to inspections, etc.), section 7429 of this title (relating to solid waste combustion), section 7475(a) of this title (relating to preconstruction requirements), an order under section 7477 of this title (relating to preconstruction requirements), an order under section 7603 of this title (relating to emergency orders), section 7661a(a) or 7661b(c) of this title (relating to permits), or any requirement or prohibition of subchapter IV–A (relating to acid deposition control), or subchapter VI (relating to stratospheric ozone control), including a requirement of any rule, order, waiver, or permit promulgated or approved under such sections or subchapters, and including any requirement for the payment of any fee owed the United States under this chapter (other than subchapter II) shall, upon conviction, be punished by a fine pursuant to title 18 or by imprisonment for not to exceed 5 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(2) Any person who knowingly—

(A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other

[1] So in original. The semicolon probably should be a comma.

document required pursuant to this chapter to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);

(B) fails to notify or report as required under this chapter; or

(C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under this chapter[2]

shall, upon conviction, be punished by a fine pursuant to title 18 or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(3) Any person who knowingly fails to pay any fee owed the United States under this subchapter, subchapter III, IV–A, V, or VI shall, upon conviction, be punished by a fine pursuant to title 18 or by imprisonment for not more than 1 year, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(4) Any person who negligently releases into the ambient air any hazardous air pollutant listed pursuant to section 7412 of this title or any extremely hazardous substance listed pursuant to section 11002(a)(2) of this title that is not listed in section 7412 of this title, and who at the time negligently places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 or by imprisonment for not more than 1 year, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(5)(A) Any person who knowingly releases into the ambient air any hazardous air pollutant listed pursuant to section 7412 of this title or any extremely hazardous substance listed pursuant to section 11002(a)(2) of this title that is not listed in section 7412 of this title, and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 or by imprisonment of not more than 15 years, or both. Any person committing such violation which is an organization shall, upon conviction under this paragraph, be subject to a fine of not more than $1,000,000 for each violation. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment. For any air pollutant for which the Administrator has set an emissions standard or for any source for which a permit has been issued under subchapter V, a release of such pollutant in accordance with that standard or permit shall not constitute a violation of this paragraph or paragraph (4).

(B) In determining whether a defendant who is an individual knew that the violation placed another person in imminent danger of death or serious bodily injury—

(i) the defendant is responsible only for actual awareness or actual belief possessed; and

(ii) knowledge possessed by a person other than the defendant, but not by the defendant, may not be attributed to the defendant;

except that in proving a defendant's possession of actual knowledge, circumstantial evidence may be used, including evidence that the defendant took affirmative steps to be shielded from relevant information.

(C) It is an affirmative defense to a prosecution that the conduct charged was freely consented to by the person endangered and that the danger and conduct charged were reasonably foreseeable hazards of—

(i) an occupation, a business, or a profession; or

(ii) medical treatment or medical or scientific experimentation conducted by professionally approved methods and such other person had been made aware of the risks involved prior to giving consent.

The defendant may establish an affirmative defense under this subparagraph by a preponderance of the evidence.

(D) All general defenses, affirmative defenses, and bars to prosecution that may apply with respect to other Federal criminal offenses may apply under subparagraph (A) of this paragraph and shall be determined by the courts of the United States according to the principles of common law as they may be interpreted in the light of reason and experience. Concepts of justification and excuse applicable under this section may be developed in the light of reason and experience.

(E) The term ''organization'' means a legal entity, other than a government, established or organized for any purpose, and such term includes a corporation, company, association, firm, partnership, joint stock company, foundation, institution, trust, society, union, or any other association of persons.

(F) The term ''serious bodily injury'' means bodily injury which involves a substantial risk of death, unconsciousness, extreme physical pain, protracted and obvious disfigurement or protracted loss or impairment of the function of a bodily member, organ, or mental faculty.

(6) For the purpose of this subsection, the term ''person'' includes, in addition to the entities referred to in section 7602(e) of this title, any responsible corporate officer.

(d) Administrative assessment of civil penalties

(1) The Administrator may issue an administrative order against any person assessing a civil administrative penalty of up to $25,000, per day of violation, whenever, on the basis of any available information, the Administrator finds that such person—

(A) has violated or is violating any requirement or prohibition of an applicable imple-

[2] So in original. Probably should be followed by a comma.

mentation plan (such order shall be issued (i) during any period of federally assumed enforcement, or (ii) more than thirty days following the date of the Administrator's notification under subsection (a)(1) of this section of a finding that such person has violated or is violating such requirement or prohibition); or

(B) has violated or is violating any other requirement or prohibition of this subchapter or subchapter III, IV–A, V, or VI, including, but not limited to, a requirement or prohibition of any rule, order, waiver, permit, or plan promulgated, issued, or approved under this chapter, or for the payment of any fee owed the United States under this chapter (other than subchapter II); or

(C) attempts to construct or modify a major stationary source in any area with respect to which a finding under subsection (a)(5) of this section has been made.

The Administrator's authority under this paragraph shall be limited to matters where the total penalty sought does not exceed $200,000 and the first alleged date of violation occurred no more than 12 months prior to the initiation of the administrative action, except where the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount or longer period of violation is appropriate for administrative penalty action. Any such determination by the Administrator and the Attorney General shall not be subject to judicial review.

(2)(A) An administrative penalty assessed under paragraph (1) shall be assessed by the Administrator by an order made after opportunity for a hearing on the record in accordance with sections 554 and 556 of title 5. The Administrator shall issue reasonable rules for discovery and other procedures for hearings under this paragraph. Before issuing such an order, the Administrator shall give written notice to the person to be assessed an administrative penalty of the Administrator's proposal to issue such order and provide such person an opportunity to request such a hearing on the order, within 30 days of the date the notice is received by such person.

(B) The Administrator may compromise, modify, or remit, with or without conditions, any administrative penalty which may be imposed under this subsection.

(3) The Administrator may implement, after consultation with the Attorney General and the States, a field citation program through regulations establishing appropriate minor violations for which field citations assessing civil penalties not to exceed $5,000 per day of violation may be issued by officers or employees designated by the Administrator. Any person to whom a field citation is assessed may, within a reasonable time as prescribed by the Administrator through regulation, elect to pay the penalty assessment or to request a hearing on the field citation. If a request for a hearing is not made within the time specified in the regulation, the penalty assessment in the field citation shall be final. Such hearing shall not be subject to section 554 or 556 of title 5, but shall provide a reasonable opportunity to be heard and to present evidence. Payment of a civil penalty required by a field citation shall not be a defense to further enforcement by the United States or a State to correct a violation, or to assess the statutory maximum penalty pursuant to other authorities in the chapter, if the violation continues.

(4) Any person against whom a civil penalty is assessed under paragraph (3) of this subsection or to whom an administrative penalty order is issued under paragraph (1) of this subsection may seek review of such assessment in the United States District Court for the District of Columbia or for the district in which the violation is alleged to have occurred, in which such person resides, or where such person's principal place of business is located, by filing in such court within 30 days following the date the administrative penalty order becomes final under paragraph (2), the assessment becomes final under paragraph (3), or a final decision following a hearing under paragraph (3) is rendered, and by simultaneously sending a copy of the filing by certified mail to the Administrator and the Attorney General. Within 30 days thereafter, the Administrator shall file in such court a certified copy, or certified index, as appropriate, of the record on which the administrative penalty order or assessment was issued. Such court shall not set aside or remand such order or assessment unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the order or penalty assessment constitutes an abuse of discretion. Such order or penalty assessment shall not be subject to review by any court except as provided in this paragraph. In any such proceedings, the United States may seek to recover civil penalties ordered or assessed under this section.

(5) If any person fails to pay an assessment of a civil penalty or fails to comply with an administrative penalty order—

(A) after the order or assessment has become final, or

(B) after a court in an action brought under paragraph (4) has entered a final judgment in favor of the Administrator,

the Administrator shall request the Attorney General to bring a civil action in an appropriate district court to enforce the order or to recover the amount ordered or assessed (plus interest at rates established pursuant to section 6621(a)(2) of title 26 from the date of the final order or decision or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of such order or assessment shall not be subject to review. Any person who fails to pay on a timely basis a civil penalty ordered or assessed under this section shall be required to pay, in addition to such penalty and interest, the United States enforcement expenses, including but not limited to attorneys fees and costs incurred by the United States for collection proceedings and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be 10 percent of the aggregate amount of such person's outstanding penalties and nonpayment penalties accrued as of the beginning of such quarter.

(e) Penalty assessment criteria

(1) In determining the amount of any penalty to be assessed under this section or section

7604(a) of this title, the Administrator or the court, as appropriate, shall take into consideration (in addition to such other factors as justice may require) the size of the business, the economic impact of the penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation as established by any credible evidence (including evidence other than the applicable test method), payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, and the seriousness of the violation. The court shall not assess penalties for noncompliance with administrative subpoenas under section 7607(a) of this title, or actions under section 7414 of this title, where the violator had sufficient cause to violate or fail or refuse to comply with such subpoena or action.

(2) A penalty may be assessed for each day of violation. For purposes of determining the number of days of violation for which a penalty may be assessed under subsection (b) or (d)(1) of this section, or section 7604(a) of this title, or an assessment may be made under section 7420 of this title, where the Administrator or an air pollution control agency has notified the source of the violation, and the plaintiff makes a prima facie showing that the conduct or events giving rise to the violation are likely to have continued or recurred past the date of notice, the days of violation shall be presumed to include the date of such notice and each and every day thereafter until the violator establishes that continuous compliance has been achieved, except to the extent that the violator can prove by a preponderance of the evidence that there were intervening days during which no violation occurred or that the violation was not continuing in nature.

(f) Awards

The Administrator may pay an award, not to exceed $10,000, to any person who furnishes information or services which lead to a criminal conviction or a judicial or administrative civil penalty for any violation of this subchapter or subchapter III, IV–A, V, or VI of this chapter enforced under this section. Such payment is subject to available appropriations for such purposes as provided in annual appropriation Acts. Any officer,[3] or employee of the United States or any State or local government who furnishes information or renders service in the performance of an official duty is ineligible for payment under this subsection. The Administrator may, by regulation, prescribe additional criteria for eligibility for such an award.

(g) Settlements; public participation

At least 30 days before a consent order or settlement agreement of any kind under this chapter to which the United States is a party (other than enforcement actions under this section, section 7420 of this title, or subchapter II, whether or not involving civil or criminal penalties, or judgments subject to Department of Justice policy on public participation) is final or filed with a court, the Administrator shall provide a reasonable opportunity by notice in the Federal Register to persons who are not named as parties or intervenors to the action or matter to comment in writing. The Administrator or the Attorney General, as appropriate, shall promptly consider any such written comments and may withdraw or withhold his consent to the proposed order or agreement if the comments disclose facts or considerations which indicate that such consent is inappropriate, improper, inadequate, or inconsistent with the requirements of this chapter. Nothing in this subsection shall apply to civil or criminal penalties under this chapter.

(h) Operator

For purposes of the provisions of this section and section 7420 of this title, the term ''operator'', as used in such provisions, shall include any person who is senior management personnel or a corporate officer. Except in the case of knowing and willful violations, such term shall not include any person who is a stationary engineer or technician responsible for the operation, maintenance, repair, or monitoring of equipment and facilities and who often has supervisory and training duties but who is not senior management personnel or a corporate officer. Except in the case of knowing and willful violations, for purposes of subsection (c)(4) of this section, the term ''a person'' shall not include an employee who is carrying out his normal activities and who is not a part of senior management personnel or a corporate officer. Except in the case of knowing and willful violations, for purposes of paragraphs (1), (2), (3), and (5) of subsection (c) of this section the term ''a person'' shall not include an employee who is carrying out his normal activities and who is acting under orders from the employer.

(July 14, 1955, ch. 360, title I, §113, as added Pub. L. 91–604, §4(a), Dec. 31, 1970, 84 Stat. 1686; amended Pub. L. 92–157, title III, §302(b), (c), Nov. 18, 1971, 85 Stat. 464; Pub. L. 93–319, §6(a)(1)–(3), June 22, 1974, 88 Stat. 259; Pub. L. 95–95, title I, §§111, 112(a), Aug. 7, 1977, 91 Stat. 704, 705; Pub. L. 95–190, §14(a)(10)–(21), (b)(1), Nov. 16, 1977, 91 Stat. 1400, 1404; Pub. L. 97–23, §2, July 17, 1981, 95 Stat. 139; Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672.)

CODIFICATION

Section was formerly classified to section 1857c–8 of this title.

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), finding of violation, notice, compliance order, civil action, State failure to enforce plan, and construction or modification of major stationary sources; in subsec. (b), violations by owners or operators of major stationary sources; in subsec. (c), penalties; in subsec. (d), final compliance orders; and in subsec. (e), steel industry compliance extension.

1981—Subsec. (e). Pub. L. 97–23 added subsec. (e).

1977—Subsec. (a)(5). Pub. L. 95–95, §111(a), added par. (5).

Subsec. (b). Pub. L. 95–95, §111(b), (c), substituted ''shall, in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, commence a civil action for a permanent or temporary injunction, or to assess and recover a civil penalty of not more than $25,000 per day

[3] So in original. The comma probably should not appear.

of violation, or both, whenever such person'' for ''may commence a civil action for appropriate relief, including a permanent or temporary injunction, whenever any person'' in provisions preceding par. (1), inserted references to subsec. (d)(5) of this section, sections 7419 and 7620 of this title, and regulations under part in par. (3), inserted reference to subsec. (d) of this section in par. (4), added par. (5), and, in provisions following par. (5), authorized the commencement of civil actions to recover noncompliance penalties and nonpayment penalties under section 7420 of this title, expanded jurisdictional provisions to authorize actions in districts in which the violation occurred and to authorize the district court to restrain violations, to require compliance, to assess civil penalties, and to collect penalties under section 7420 of this title, enumerated factors to be taken into consideration in determining the amount of civil penalties, and authorized awarding of costs to the party or parties against whom the action was brought in cases where the court finds that the action was unreasonable.

Subsec. (b)(3). Pub. L. 95–190, §14(a)(10), (11), inserted ''or'' after ''ozone);'', and substituted ''7624'' for ''7620'', ''conversion), section'' for ''conversion) section'', and ''orders), or'' for ''orders) or''.

Subsec. (c)(1). Pub. L. 95–95, §111(d)(1), (2), substituted ''any order issued under section 7419 of this title or under subsection (a) or (d) of this section'' for ''any order issued by the Administrator under subsection (a)'' in subpar. (B), struck out reference to section 119(g) (as in effect before the date of the enactment of Pub. L. 95–95) in subpar. (C), and added subpar. (D).

Subsec. (c)(1)(B). Pub. L. 95–190, §14(a)(12), inserted ''or'' after ''section,''.

Subsec. (c)(1)(D). Pub. L. 95–190, §14(a)(13), substituted ''1977 subsection'' for ''1977) subsection'' and ''penalties), or'' for ''penalties) or''.

Subsec. (c)(3). Pub. L. 95–95, §111(d)(3), added par. (3).

Subsec. (d). Pub. L. 95–95, §112(a), added subsec. (d).

Subsec. (d)(1). Pub. L. 95–190, §14(a)(14), substituted ''to any stationary source which is unable to comply with any requirement of an applicable implementation plan an order'' for ''an order for any stationary source'' and ''such requirement'' for ''any requirement of an applicable implementation plan''.

Subsec. (d)(1)(E). Pub. L. 95–190, §14(a)(15), inserted provision relating to exemption under section 7420(a)(2)(B) or (C) of this title, provision relating to noncompliance penalties effective July 1, 1979, and reference to subsec. (b)(3) or (g) of section 7420 of this title.

Subsec. (d)(2). Pub. L. 95–190, §14(a)(16), inserted provisions relating to determinations by the Administrator of compliance with requirements of this chapter of State orders issued under this subsection.

Subsec. (d)(4)(A). Pub. L. 95–190, §14(a)(17), substituted ''title) upon'' for ''title upon''.

Subsec. (d)(5)(A). Pub. L. 95–190, §14(a)(18), substituted ''an additional period for'' for ''an additional period of''.

Subsec. (d)(8). Pub. L. 95–190, §14(a)(19), struck out reference to par. (3) of this subsection.

Subsec. (d)(10). Pub. L. 95–190, §14(a)(20), substituted ''in effect'' for ''issued'', ''Federal'' for ''other'', and ''and no action under'' for ''or''.

Subsec. (d)(11). Pub. L. 95–190, §14(a)(21), substituted ''and in effect'' for ''(and approved by the Administrator)''.

1974—Subsec. (a)(3). Pub. L. 93–319, §6(a)(1), inserted reference to section 1857c–10(g) of this title (relating to energy-related authorities).

Subsecs. (b)(3), (c)(1)(C). Pub. L. 93–319, §6(a)(2), (3), inserted reference to section 1857c–10(g) of this title.

1971—Subsec. (b)(2). Pub. L. 92–157, §302(b), inserted ''(A)'' before ''during'' and '', or (B)'' after ''assumed enforcement''.

Subsec. (c)(1)(A). Pub. L. 92–157, §302(c), inserted ''(i)'' before ''during'' and '', or (ii)'' after ''assumed enforcement''.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

TRANSFER OF FUNCTIONS

Federal Power Commission terminated and its functions, personnel, property, funds, etc., transferred to Secretary of Energy (except for certain functions transferred to Federal Energy Regulatory Commission) by sections 7151(b), 7171(a), 7172(a), 7291, and 7293 of this title.

§ 7414. Recordkeeping, inspections, monitoring, and entry

(a) Authority of Administrator or authorized representative

For the purpose (i) of developing or assisting in the development of any implementation plan under section 7410 or section 7411(d) of this title, any standard of performance under section 7411 of this title, any emission standard under section 7412 of this title,,[1] or any regulation of solid waste combustion under section 7429 of this title, or any regulation under section 7429 of this title (relating to solid waste combustion), (ii) of determining whether any person is in violation of any such standard or any requirement of such a plan, or (iii) carrying out any provision of this chapter (except a provision of subchapter II with respect to a manufacturer of new motor vehicles or new motor vehicle engines)—

(1) the Administrator may require any person who owns or operates any emission source, who manufactures emission control equipment or process equipment, who the Administrator believes may have information necessary for the purposes set forth in this subsection, or who is subject to any requirement of this chapter (other than a manufacturer subject to the provisions of section 7525(c) or 7542 of this title with respect to a provision of subchapter II) on a one-time, periodic or continuous basis to—

[1] So in original.

(A) establish and maintain such records;

(B) make such reports;

(C) install, use, and maintain such monitoring equipment, and use such audit procedures, or methods;

(D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods and in such manner as the Administrator shall prescribe);

(E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical;

(F) submit compliance certifications in accordance with subsection (a)(3); and

(G) provide such other information as the Administrator may reasonably require; and[2]

(2) the Administrator or his authorized representative, upon presentation of his credentials—

(A) shall have a right of entry to, upon, or through any premises of such person or in which any records required to be maintained under paragraph (1) of this section are located, and

(B) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under paragraph (1), and sample any emissions which such person is required to sample under paragraph (1).[3]

(3) The[4] Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require enhanced monitoring and submission of compliance certifications. Compliance certifications shall include (A) identification of the applicable requirement that is the basis of the certification, (B) the method used for determining the compliance status of the source, (C) the compliance status, (D) whether compliance is continuous or intermittent, (E) such other facts as the Administrator may require. Compliance certifications and monitoring data shall be subject to subsection (c) of this section. Submission of a compliance certification shall in no way limit the Administrator's authorities to investigate or otherwise implement this chapter. The Administrator shall promulgate rules to provide guidance and to implement this paragraph within 2 years after November 15, 1990.

(b) State enforcement

(1) Each State may develop and submit to the Administrator a procedure for carrying out this section in such State. If the Administrator finds the State procedure is adequate, he may delegate to such State any authority he has to carry out this section.

(2) Nothing in this subsection shall prohibit the Administrator from carrying out this section in a State.

(c) Availability of records, reports, and information to public; disclosure of trade secrets

Any records, reports or information obtained under subsection (a) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, (other than emission data) to which the Administrator has access under this section if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter or when relevant in any proceeding under this chapter.

(d) Notice of proposed entry, inspection, or monitoring

(1) In the case of any emission standard or limitation or other requirement which is adopted by a State, as part of an applicable implementation plan or as part of an order under section 7413(d)[5] of this title, before carrying out an entry, inspection, or monitoring under paragraph (2) of subsection (a) with respect to such standard, limitation, or other requirement, the Administrator (or his representatives) shall provide the State air pollution control agency with reasonable prior notice of such action, indicating the purpose of such action. No State agency which receives notice under this paragraph of an action proposed to be taken may use the information contained in the notice to inform the person whose property is proposed to be affected of the proposed action. If the Administrator has reasonable basis for believing that a State agency is so using or will so use such information, notice to the agency under this paragraph is not required until such time as the Administrator determines the agency will no longer so use information contained in a notice under this paragraph. Nothing in this section shall be construed to require notification to any State agency of any action taken by the Administrator with respect to any standard, limitation, or other requirement which is not part of an applicable implementation plan or which was promulgated by the Administrator under section 7410(c) of this title.

(2) Nothing in paragraph (1) shall be construed to provide that any failure of the Administrator to comply with the requirements of such paragraph shall be a defense in any enforcement action brought by the Administrator or shall make inadmissible as evidence in any such action any information or material obtained notwithstanding such failure to comply with such requirements.

(July 14, 1955, ch. 360, title I, § 114, as added Pub. L. 91–604, § 4(a), Dec. 31, 1970, 84 Stat. 1687; amended Pub. L. 93–319, § 6(a)(4), June 22, 1974, 88 Stat. 259; Pub. L. 95–95, title I, §§ 109(d)(3), 113, title III, § 305(d), Aug. 7, 1977, 91 Stat. 701, 709,

[2] So in original. The "and" probably should not appear.

[3] The period probably should be "; and".

[4] So in original. Probably should not be capitalized.

[5] See References in Text note below.

776; Pub. L. 95–190, §14(a)(22), (23), Nov. 16, 1977, 91 Stat. 1400; Pub. L. 101–549, title III, §302(c), title VII, §702(a), (b), Nov. 15, 1990, 104 Stat. 2574, 2680, 2681.)

REFERENCES IN TEXT

Section 7413(d) of this title, referred to in subsec. (d)(1), was amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders.

CODIFICATION

Section was formerly classified to section 1857c–9 of this title.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, §702(a)(1), which directed that ''or'' be struck out in first sentence immediately before ''any emission standard under section 7412 of this title,'' could not be executed because of the prior amendment by Pub. L. 101–549, §302(c), see below.

Pub. L. 101–549, §702(a)(2), inserted ''or any regulation under section 7429 of this title (relating to solid waste combustion),'' before ''(ii) of determining''.

Pub. L. 101–549, §302(c), struck out ''or'' after ''performance under section 7411 of this title,'' and inserted '', or any regulation of solid waste combustion under section 7429 of this title,'' after ''standard under section 7412 of this title''.

Subsec. (a)(1). Pub. L. 101–549, §702(a)(3), amended par. (1) generally. Prior to amendment, par. (1) read as follows: ''the Administrator may require any person who owns or operates any emission source or who is subject to any requirement of this chapter (other than a manufacturer subject to the provisions of section 7525(c) or 7542 of this title) with respect to a provision of subchapter II of this chapter to (A) establish and maintain such records, (B) make such reports, (C) install, use, and maintain such monitoring equipment or methods, (D) sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (E) provide such other information as he may reasonably require; and''.

Subsec. (a)(3). Pub. L. 101–549, §702(b), added par. (3).

1977—Subsec. (a). Pub. L. 95–190, §14(a)(22), inserted reference to subchapter II of this chapter and ''new'' before ''motor'' in two places.

Pub. L. 95–95, §305(d), substituted ''carrying out any provision of this chapter (except with respect to a manufacturer of motor vehicles or motor vehicle engines)'' for ''carrying out sections 119 or 303'' in cl. (iii) preceding par. (1), substituted ''any person subject to any requirement of this chapter (other than a manufacturer subject to the provisions of sections 7525(c) or 7542 of this title)'' for ''the owner or operator of any emission source'' in par. (1), substituted ''any premises of such person'' for ''any premises in which an emission source is located'' in subpar. (A) of par. (2), and substituted ''emissions which such person is required to sample'' for ''emissions which the owner or operator of such source is required to sample'' in subpar. (B) of subpar. (2).

Subsec. (a)(1). Pub. L. 95–190, §14(a)(23), inserted reference to subchapter II of this chapter and ''who owns or operates any emission source or who is'' after ''any person''.

Subsec. (b)(1). Pub. L. 95–95, §109(d)(3), struck out ''(except with respect to new sources owned or operated by the United States)'' after ''to carry out this section''.

Subsec. (d). Pub. L. 95–95, §113, added subsec. (d).

1974—Subsec. (a). Pub. L. 93–319 inserted reference to section 119.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7415. International air pollution

(a) Endangerment of public health or welfare in foreign countries from pollution emitted in United States

Whenever the Administrator, upon receipt of reports, surveys or studies from any duly constituted international agency has reason to believe that any air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a nature, the Administrator shall give formal notification thereof to the Governor of the State in which such emissions originate.

(b) Prevention or elimination of endangerment

The notice of the Administrator shall be deemed to be a finding under section 7410(a)(2)(H)(ii) of this title which requires a plan revision with respect to so much of the applicable implementation plan as is inadequate to prevent or eliminate the endangerment referred to in subsection (a). Any foreign country so affected by such emission of pollutant or pollutants shall be invited to appear at any public hearing associated with any revision of the appropriate portion of the applicable implementation plan.

(c) Reciprocity

This section shall apply only to a foreign country which the Administrator determines has given the United States essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by this section.

(d) Recommendations

Recommendations issued following any abatement conference conducted prior to August 7,

1977, shall remain in effect with respect to any pollutant for which no national ambient air quality standard has been established under section 7409 of this title unless the Administrator, after consultation with all agencies which were party to the conference, rescinds any such recommendation on grounds of obsolescence.

(July 14, 1955, ch. 360, title I, §115, formerly §5, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 396; renumbered §105 and amended Pub. L. 89–272, title I, §§101(2), (3), 102, Oct. 20, 1965, 79 Stat. 992, 995, renumbered §108 and amended Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 491, renumbered §115 and amended Pub. L. 91–604, §§4(a), (b)(2)–(10), 15(c)(2), Dec. 31, 1970, 84 Stat. 1678, 1688, 1689, 1713; Pub. L. 95–95, title I, §114, Aug. 7, 1977, 91 Stat. 710.)

CODIFICATION

Section was formerly classified to section 1857d of this title.

AMENDMENTS

1977—Pub. L. 95–95 completely revised section by substituting provisions establishing a mechanism for the Administrator to trigger a revision of a State implementation plan under section 7410(a)(2)(H) upon a petition of an international agency or the Secretary of State if he finds that emissions originating in a State endanger the health or welfare of persons in a foreign country for provisions calling for the abatement of air pollution by means of conference procedures.

1970—Subsec. (a). Pub. L. 91–604, §4(b)(2), inserted ''and which is covered by subsection (b) or (c)'' after ''persons''.

Subsec. (b). Pub. L. 91–604, §§4(b)(3), (4), (5), 15(c)(2), redesignated former subsec. (d)(1)(A), (B), and (C) as (b)(1), (2), and (3), substituted ''Administrator'' for ''Secretary'' wherever appearing, and added subsec. (b)(4). Former subsec. (b), which related to the encouragement of municipal, State, and interstate action to abate air pollution, was struck out.

Subsec. (c). Pub. L. 91–604, §§4(b)(3), (6), 15(c)(2), redesignated former subsec. (d)(1)(D) as (c) and substituted ''Administrator'' for ''Secretary'' and ''Secretary of Health, Education, and Welfare'' wherever appearing and ''subsection'' for ''subparagraph'' wherever appearing. Former subsec. (c), which related to the procedure for the promulgation of State air quality standards, was struck out.

Subsec. (d). Pub. L. 91–604, §§4(b)(4), (6), (7), (8), 15(c)(2), redesignated former subsec. (d)(2) and (3) as (d)(1) and (2), in (d)(1) substituted ''Administrator'' for ''Secretary'' wherever appearing and ''any conference under this section'' for ''such conference'', and in (d)(2) substituted ''Administrator'' for ''Secretary''. Former subsec. (d)(1)(A), (B), and (C) were redesignated as (b)(1), (2), and (3), respectively, and subsec. (d)(1)(D) was redesignated as (c).

Subsec. (e). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (f). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing and ''Environmental Protection Agency'' for ''Department of Health, Education, and Welfare''.

Subsec. (g). Pub. L. 91–604, §§4(b)(9), 15(c)(2), substituted ''Administrator'' for ''Secretary'' and ''subsection (c)'' for ''subparagraph (D) of subsection (d)''.

Subsecs. (i), (j). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (k). Pub. L. 91–604, §4(b)(3), (10), substituted provisions relating to compliance with any requirement of an applicable implementation plan or with any standard prescribed under section 7411 of this title or section 7412 of this title, for provisions relating to the enjoining of imminent and substantial endangerment from pollution sources.

1967—Subsec. (b). Pub. L. 90–148 substituted reference to subsec. (c), (h), or (k) of this section for reference to subsec. (g) of this section.

Subsecs. (c), (d). Pub. L. 90–148 added subsec. (c), redesignated former subsec. (c) as (d), inserted in par. (2) provisions for the delivery prior to the conference of a Federal report to agencies and interested parties covering matters before the conference, raised from three weeks to thirty days the required notice of the conference, and inserted provisions for notice by newspapers, presentation of views on the Federal report, and transcript of proceedings. Former subsec. (d) redesignated (e).

Subsec. (e). Pub. L. 90–148 redesignated former subsec. (d) as (e). Former subsec. (e) redesignated (f) and amended.

Subsec. (f). Pub. L. 90–148 redesignated former subsec. (e) as (f) and inserted in par. (1) requirement that all interested parties be given a reasonable opportunity to present evidence to the hearing board. Former subsec. (f) redesignated (g) and amended.

Subsec. (g). Pub. L. 90–148 redesignated former subsec. (f) as (g) and substituted reference to subsec. (d) of this section for reference to subsec. (c) of this section. Former subsec. (g) redesignated (h) and amended.

Subsec. (h). Pub. L. 90–148 redesignated former subsec. (g) as (h) and substituted reference to subsec. (g) of this section for reference to subsec. (f) of this section. Former subsec. (h) redesignated (i) and amended.

Subsec. (i). Pub. L. 90–148 redesignated former subsec. (h) as (i) and substituted reference to subsec. (f) of this section for reference to subsec. (e) of this section and raised the per diem maximum from $50 to $100. Former subsec. (i) redesignated (j).

Subsec. (j). Pub. L. 90–148 redesignated former subsec. (i) as (j).

Subsec. (k). Pub. L. 90–148 added subsec. (k).

1965—Subsec. (b). Pub. L. 89–272, §101(2), substituted ''this title'' for ''this Act'', which for purposes of codification has been changed to ''this subchapter''.

Subsec. (c)(1)(D). Pub. L. 89–272, §102(a), added subpar. (D).

Subsec. (d)(3). Pub. L. 89–272, §101(2), substituted ''subchapter'' for ''chapter''.

Subsec. (f)(1). Pub. L. 89–272, §102(b), designated existing provisions as cl. (A) and added cl. (B).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

UNITED STATES-CANADIAN NEGOTIATIONS ON AIR QUALITY

Pub. L. 95–426, title VI, §612, Oct. 7, 1978, 92 Stat. 990, provided that:

''(a) The Congress finds that—

''(1) the United States and Canada share a common environment along a 5,500 mile border;

''(2) the United States and Canada are both becoming increasingly concerned about the effects of pollution, particularly that resulting from power genera-

tion facilities, since the facilities of each country affect the environment of the other;

''(3) the United States and Canada have subscribed to international conventions; have joined in the environmental work of the United Nations, the Organization for Economic Cooperation and Development, and other international environmental forums; and have entered into and implemented effectively the provisions of the historic Boundary Waters Treaty of 1909; and

''(4) the United States and Canada have a tradition of cooperative resolution of issues of mutual concern which is nowhere more evident than in the environmental area.

''(b) It is the sense of the Congress that the President should make every effort to negotiate a cooperative agreement with the Government of Canada aimed at preserving the mutual airshed of the United States and Canada so as to protect and enhance air resources and insure the attainment and maintenance of air quality protective of public health and welfare.

''(c) It is further the sense of the Congress that the President, through the Secretary of State working in concert with interested Federal agencies and the affected States, should take whatever diplomatic actions appear necessary to reduce or eliminate any undesirable impact upon the United States and Canada resulting from air pollution from any source.''

§ 7416. Retention of State authority

Except as otherwise provided in sections 1857c–10(c), (e), and (f) (as in effect before August 7, 1977), 7543, 7545(c)(4), and 7573 of this title (preempting certain State regulation of moving sources) nothing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 7411 or section 7412 of this title, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

(July 14, 1955, ch. 360, title I, § 116, formerly § 109, as added Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 497; renumbered § 116 and amended Pub. L. 91–604, § 4(a), (c), Dec. 31, 1970, 84 Stat. 1678, 1689; Pub. L. 93–319, § 6(b), June 22, 1974, 88 Stat. 259; Pub. L. 95–190, § 14(a)(24), Nov. 16, 1977, 91 Stat. 1400.)

REFERENCES IN TEXT

1857c–10(c), (e), and (f) (as in effect before August 7, 1977), referred to in text, was in the original ''119(c), (e), and (f) (as in effect before the date of the enactment of the Clean Air Act Amendments of 1977)'' meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, § 3, 88 Stat. 248, (which was classified to section 1857c–10 of this title) as in effect prior to the enactment of Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95–95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93–319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to subsec. (d)(5) of section 7413 of this title. Section 7413 of this title was subsequently amended generally by Pub. L. 101–549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders. Section 117(b) of Pub. L. 95–95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

CODIFICATION

Section was formerly classified to section 1857d–1 of this title.

AMENDMENTS

1977—Pub. L. 95–190 inserted reference to specified provisions in effect before Aug. 7, 1977.

1974—Pub. L. 93–319 inserted reference to section 1857c–10(c), (e), and (f).

1970—Pub. L. 91–604, § 4(c), substituted provisions which authorized any State or political subdivision thereof to adopt or enforce, except as otherwise provided, emission standards or limitations under the specified conditions, or any requirement respecting control or abatement of air pollution, for provisions which authorized any State, political subdivision, or intermunicipal or interstate agency to adopt standards and plans to achieve a higher level of air quality than approved by the Secretary.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7417. Advisory committees

(a) Establishment; membership

In order to obtain assistance in the development and implementation of the purposes of this chapter including air quality criteria, recommended control techniques, standards, research and development, and to encourage the continued efforts on the part of industry to improve air quality and to develop economically feasible methods for the control and abatement of air pollution, the Administrator shall from time to time establish advisory committees. Committee members shall include, but not be limited to, persons who are knowledgeable concerning air quality from the standpoint of health, welfare, economics or technology.

(b) Compensation

The members of any other advisory committees appointed pursuant to this chapter who are not officers or employees of the United States while attending conferences or meetings or while otherwise serving at the request of the Administrator, shall be entitled to receive compensation at a rate to be fixed by the Administrator, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5 for persons in the Government service employed intermittently.

(c) [1] Consultations by Administrator

Prior to—

[1] See Codification note below.

(1) issuing criteria for an air pollutant under section 7408(a)(2) of this title,

(2) publishing any list under section 7411(b)(1)(A) or section 7412(b)(1)(A)[2] of this title,

(3) publishing any standard under section 7411 or section 7412 of this title, or

(4) publishing any regulation under section 7521(a) of this title,

the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, independence experts, and Federal departments and agencies.

(July 14, 1955, ch. 360, title I, §117 formerly §6, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 399; renumbered §106, Pub. L. 89–272, title I, §101(3), Oct. 20, 1965, 79 Stat. 992; renumbered §110 and amended Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 498; renumbered §117 and amended Pub. L. 91–604, §§4(a), (d), 15(c)(2), Dec. 31, 1970, 84 Stat. 1678, 1689, 1713; Pub. L. 95–95, title I, §115, Aug. 7, 1977, 91 Stat. 711; Pub. L. 95–623, §13(c), Nov. 9, 1978, 92 Stat. 3458.)

REFERENCES IN TEXT

Section 7412(b)(1), referred to in subsec. (c)(2), was amended generally by Pub. L. 101–549, title III, §301, Nov. 15, 1990, 104 Stat. 2531, and, as so amended, no longer contains a subpar. (A).

CODIFICATION

Subsec. (c) was originally enacted as subsec. (f) but has been redesignated (c) for purposes of codification in view of the failure of Pub. L. 95–95 to redesignate subsec. (f) as (c) after repealing former subsecs. (a) and (b) and redesignating former subsecs. (d) and (e) as (a) and (b).

Section was formerly classified to section 1857e of this title.

AMENDMENTS

1978—Subsec. (c)(3). Pub. L. 95–623 substituted ''7411'' for ''7411(b)(1)(B)'' and ''7412'' for ''7412(b)(1)(B)''.

1977—Subsec. (a). Pub. L. 95–95, §115(1), (2), redesignated subsec. (d) as (a). Former subsec. (a), establishing an Air Quality Advisory Board in the Environmental Protection Agency, was struck out.

Subsec. (b). Pub. L. 95–95, §115(1)–(3), redesignated subsec. (e) as (b) and substituted ''The members of any other advisory committees'' for ''The members of the Board and other advisory committees'' and ''conferences or meetings or while otherwise serving'' for ''conferences or meetings of the Board or while otherwise serving''. Former subsec. (b), setting out the duties of the Air Quality Advisory Board, was struck out.

Subsecs. (c) to (e). Pub. L. 95–95, §115(1), (2), struck out subsec. (c) which related to clerical and technical assistance for the Air Quality Advisory Board, and redesignated subsecs. (d) and (e) as (a) and (b), respectively.

1970—Subsec. (a). Pub. L. 91–604, §15(c)(2), substituted ''Environmental Protection Agency'' for ''Department of Health, Education, and Welfare'' and ''Administrator'' for ''Secretary''.

Subsec. (b). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (c). Pub. L. 91–604, §15(c)(2), substituted ''Environmental Protection Agency'' for ''Department of Health, Education, and Welfare''.

Subsecs. (d), (e). Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (f). Pub. L. 91–604, §4(d), added subsec. (f).

1967—Subsec. (a). Pub. L. 90–148 substituted provisions establishing in the Department of Health, Education, and Welfare an Air Quality Advisory Board and providing for the appointment and term of its members for provisions directing the Secretary to maintain liaison with manufacturers looking toward development of devices and fuels to reduce pollutants in automotive exhaust and to appoint a technical committee and call it together from time to time to evaluate progress and develop and recommend research programs.

Subsec. (b). Pub. L. 90–148 substituted provision setting out the duties of the Air Quality Advisory Board for provisions requiring the Secretary to make semiannual reports to Congress on measures being taken toward the resolution of vehicle exhaust pollution problems.

Subsecs. (c) to (e). Pub. L. 90–148 added subsecs. (c) to (e).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees in existence on Jan. 5, 1973, to terminate not later than the expiration of the 2-year period following Jan. 5, 1973, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided by law. Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

§ 7418. Control of pollution from Federal facilities

(a) General compliance

Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge of air pollutants, and each officer, agent, or employee thereof, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollu-

[2] See References in Text note below.

tion in the same manner, and to the same extent as any nongovernmental entity. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement whatsoever), (B) to any requirement to pay a fee or charge imposed by any State or local agency to defray the costs of its air pollution regulatory program, (C) to the exercise of any Federal, State, or local administrative authority, and (D) to any process and sanction, whether enforced in Federal, State, or local courts, or in any other manner. This subsection shall apply notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law. No officer, agent, or employee of the United States shall be personally liable for any civil penalty for which he is not otherwise liable.

(b) Exemption

The President may exempt any emission source of any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so, except that no exemption may be granted from section 7411 of this title, and an exemption from section 7412 of this title may be granted only in accordance with section 7412(i)(4) of this title. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods of not to exceed one year upon the President's making a new determination. In addition to any such exemption of a particular emission source, the President may, if he determines it to be in the paramount interest of the United States to do so, issue regulations exempting from compliance with the requirements of this section any weaponry, equipment, aircraft, vehicles, or other classes or categories of property which are owned or operated by the Armed Forces of the United States (including the Coast Guard) or by the National Guard of any State and which are uniquely military in nature. The President shall reconsider the need for such regulations at three-year intervals. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

(c) Government vehicles

Each department, agency, and instrumentality of executive, legislative, and judicial branches of the Federal Government shall comply with all applicable provisions of a valid inspection and maintenance program established under the provisions of subpart 2 of part D or subpart 3 of part D except for such vehicles that are considered military tactical vehicles.

(d) Vehicles operated on Federal installations

Each department, agency, and instrumentality of executive, legislative, and judicial branches of the Federal Government having jurisdiction over any property or facility shall require all employees which operate motor vehicles on the property or facility to furnish proof of compliance with the applicable requirements of any vehicle inspection and maintenance program established under the provisions of subpart 2 of part D or subpart 3 of part D for the State in which such property or facility is located (without regard to whether such vehicles are registered in the State). The installation shall use one of the following methods to establish proof of compliance—

(1) presentation by the vehicle owner of a valid certificate of compliance from the vehicle inspection and maintenance program;

(2) presentation by the vehicle owner of proof of vehicle registration within the geographic area covered by the vehicle inspection and maintenance program (except for any program whose enforcement mechanism is not through the denial of vehicle registration);

(3) another method approved by the vehicle inspection and maintenance program administrator.

(July 14, 1955, ch. 360, title I, § 118, formerly, § 7, as added Pub. L. 88–206, § 1, Dec. 17, 1963, 77 Stat. 399; renumbered § 107, Pub. L. 89–272, title I, § 101(3), Oct. 20, 1965, 79 Stat. 992; renumbered § 111 and amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 499; renumbered § 118 and amended Pub. L. 91–604, §§ 4(a), 5, Dec. 31, 1970, 84 Stat. 1678, 1689; Pub. L. 95–95, title I, § 116, Aug. 7, 1977, 91 Stat. 711; Pub. L. 101–549, title I, § 101(e), title II, § 235, title III, § 302(d), Nov. 15, 1990, 104 Stat. 2409, 2530, 2574.)

CODIFICATION

Section was formerly classified to section 1857f of this title.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, § 235, inserted heading.

Pub. L. 101–549, § 101(e), amended second sentence generally. Prior to amendment, second sentence read as follows: ''The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement whatsoever), (B) to the exercise of any Federal, State, or local administrative authority, and (C) to any process and sanction, whether enforced in Federal, State, or local courts or in any other manner.''

Subsec. (b). Pub. L. 101–549, § 302(d), substituted ''section 7412(i)(4) of this title'' for ''section 7412(c) of this title''.

Subsecs. (c), (d). Pub. L. 101–549, § 235, added subsecs. (c) and (d).

1977—Subsec. (a). Pub. L. 95–95, § 116(a), designated existing first sentence as subsec. (a) and inserted provisions enumerating the legal and administrative areas to which the compliance requirements apply and directing that agencies, officers, agents, and employees not be immune and that officers, agents, or employees of the United States not be personally liable for civil penalties for which they are not otherwise liable.

Subsec. (b). Pub. L. 95–95, § 116(b), designated second and following existing sentences as subsec. (b) and inserted provisions authorizing the President to exempt weaponry, equipment, aircraft, vehicles, and other classes and categories of property of the Armed Forces and the National Guard from compliance but to reconsider the need for such an exemption at three-year intervals.

1970—Pub. L. 91–604, § 5, struck out lettered designations (a) and (b), and, as so redesignated, substituted provisions requiring Federal facilities to comply with Federal, State, local, and interstate air pollution control and abatement requirements and provisions authorizing the President to exempt, under the specified terms and conditions, any emission source of any department, etc., in the executive branch from compliance with control and abatement requirements, for provisions requiring, to the extent practicable and consistent with the interests of the United States and within any available appropriations, Federal facilities to cooperate with the Department of Health, Education, and Welfare and with any air pollution control agency to prevent and control air pollution and provisions authorizing the Secretary to establish classes of potential pollution sources for which any Federal department or agency having jurisdiction over any facility was required to obtain a permit, under the specified terms and conditions, for the discharge of any matter into the air of the United States.

1967—Pub. L. 90–148 reenacted section without change.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective May 15, 2000, of provisions in subsec. (b) of this section relating to annual reports to Congress, see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 12th item on page 20 of House Document No. 103–7.

TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

EXECUTIVE ORDER NO. 11282

Ex. Ord. No. 11282, May 26, 1966, 31 F.R. 7663, which provided for the prevention, control, and abatement of air pollution from Federal activities, was superseded by Ex. Ord. No. 11507, Feb. 4, 1970, 35 F.R. 2573.

EXECUTIVE ORDER NO. 11507

Ex. Ord. No. 11507, Feb. 4, 1970, 35 F.R. 2573, which provided for the prevention, control, and abatement of air pollution at Federal facilities, was superseded by Ex. Ord. No. 11752, Dec. 17, 1973, 38 F.R. 34793, formerly set out as a note under section 4331 of this title.

§ 7419. Primary nonferrous smelter orders

(a) Issuance; hearing; enforcement orders; statement of grounds for application; findings

(1) Upon application by the owner or operator of a primary nonferrous smelter, a primary nonferrous smelter order under subsection (b) may be issued—

(A) by the Administrator, after thirty days' notice to the State, or

(B) by the State in which such source is located, but no such order issued by the State shall take effect until the Administrator determines that such order has been issued in accordance with the requirements of this chapter.

Not later than ninety days after submission by the State to the Administrator of notice of the issuance of a primary nonferrous smelter order under this section, the Administrator shall determine whether or not such order has been issued by the State in accordance with the requirements of this chapter. If the Administrator determines that such order has not been issued in accordance with such requirements, he shall conduct a hearing respecting the reasonably available control technology for primary nonferrous smelters.

(2)(A) An order issued under this section to a primary nonferrous smelter shall be referred to as a ''primary nonferrous smelter order''. No primary nonferrous smelter may receive both an enforcement order under section 7413(d)[1] of this title and a primary nonferrous smelter order under this section.

(B) Before any hearing conducted under this section, in the case of an application made by the owner or operator of a primary nonferrous smelter for a second order under this section, the applicant shall furnish the Administrator (or the State as the case may be) with a statement of the grounds on which such application is based (including all supporting documents and information). The statement of the grounds for the proposed order shall be provided by the Administrator or the State in any case in which such State or Administrator is acting on its own initiative. Such statement (including such documents and information) shall be made available to the public for a thirty-day period before such hearing and shall be considered as part of such hearing. No primary nonferrous smelter order may be granted unless the applicant establishes that he meets the conditions required for the issuance of such order (or the Administrator or State establishes the meeting of such conditions when acting on their own initiative).

(C) Any decision with respect to the issuance of a primary nonferrous smelter order shall be accompanied by a concise statement of the findings and of the basis of such findings.

[1] See References in Text note below.

(3) For the purposes of sections 7410, 7604, and 7607 of this title, any order issued by the State and in effect pursuant to this subsection shall become part of the applicable implementation plan.

(b) Prerequisites to issuance of orders

A primary nonferrous smelter order under this section may be issued to a primary nonferrous smelter if—

(1) such smelter is in existence on August 7, 1977;

(2) the requirement of the applicable implementation plan with respect to which the order is issued is an emission limitation or standard for sulfur oxides which is necessary and intended to be itself sufficient to enable attainment and maintenance of national primary and secondary ambient air quality standards for sulfur oxides; and

(3) such smelter is unable to comply with such requirement by the applicable date for compliance because no means of emission limitation applicable to such smelter which will enable it to achieve compliance with such requirement has been adequately demonstrated to be reasonably available (as determined by the Administrator, taking into account the cost of compliance, non-air quality health and environmental impact, and energy consideration).

(c) Second orders

(1) A second order issued to a smelter under this section shall set forth compliance schedules containing increments of progress which require compliance with the requirement postponed as expeditiously as practicable. The increments of progress shall be limited to requiring compliance with subsection (d) and, in the case of a second order, to procuring, installing, and operating the necessary means of emission limitation as expeditiously as practicable after the Administrator determines such means have been adequately demonstrated to be reasonably available within the meaning of subsection (b)(3).

(2) Not in excess of two primary nonferrous smelter orders may be issued under this section to any primary nonferrous smelter. The first such order issued to a smelter shall not result in the postponement of the requirement with respect to which such order is issued beyond January 1, 1983. The second such order shall not result in the postponement of such requirement beyond January 1, 1988.

(d) Interim measures; continuous emission reduction technology

(1)(A) Each primary nonferrous smelter to which an order is issued under this section shall be required to use such interim measures for the period during which such order is in effect as may be necessary in the judgment of the Administrator to assure attainment and maintenance of the national primary and secondary ambient air quality standards during such period, taking into account the aggregate effect on air quality of such order together with all variances, extensions, waivers, enforcement orders, delayed compliance orders and primary nonferrous smelter orders previously issued under this chapter.

(B) Such interim requirements shall include—

(i) a requirement that the source to which the order applies comply with such reporting requirements and conduct such monitoring as the Administrator determines may be necessary, and

(ii) such measures as the Administrator determines are necessary to avoid an imminent and substantial endangerment to health of persons.

(C) Such interim measures shall also, except as provided in paragraph (2), include continuous emission reduction technology. The Administrator shall condition the use of any such interim measures upon the agreement of the owner or operator of the smelter—

(i) to comply with such conditions as the Administrator determines are necessary to maximize the reliability and enforceability of such interim measures, as applied to the smelter, in attaining and maintaining the national ambient air quality standards to which the order relates, and

(ii) to commit reasonable resources to research and development of appropriate emission control technology.

(2) The requirement of paragraph (1) for the use of continuous emission reduction technology may be waived with respect to a particular smelter by the State or the Administrator, after notice and a hearing on the record, and upon a showing by the owner or operator of the smelter that such requirement would be so costly as to necessitate permanent or prolonged temporary cessation of operations of the smelter. Upon application for such waiver, the Administrator shall be notified and shall, within ninety days, hold a hearing on the record in accordance with section 554 of title 5. At such hearing the Administrator shall require the smelter involved to present information relating to any alleged cessation of operations and the detailed reasons or justifications therefor. On the basis of such hearing the Administrator shall make findings of fact as to the effect of such requirement and on the alleged cessation of operations and shall make such recommendations as he deems appropriate. Such report, findings, and recommendations shall be available to the public, and shall be taken into account by the State or the Administrator in making the decision whether or not to grant such waiver.

(3) In order to obtain information for purposes of a waiver under paragraph (2), the Administrator may, on his own motion, conduct an investigation and use the authority of section 7621 of this title.

(4) In the case of any smelter which on August 7, 1977, uses continuous emission reduction technology and supplemental controls and which receives an initial primary nonferrous smelter order under this section, no additional continuous emission reduction technology shall be required as a condition of such order unless the Administrator determines, at any time, after notice and public hearing, that such additional continuous emission reduction technology is adequately demonstrated to be reasonably available for the primary nonferrous smelter industry.

(e) Termination of orders

At any time during which an order under this section applies, the Administrator may enter upon a public hearing respecting the availability of technology. Any order under this section shall be terminated if the Administrator determines on the record, after notice and public hearing, that the conditions upon which the order was based no longer exist. If the owner or operator of the smelter to which the order is issued demonstrates that prompt termination of such order would result in undue hardship, the termination shall become effective at the earliest practicable date on which such undue hardship would not result, but in no event later than the date required under subsection (c).

(f) Violation of requirements

If the Administrator determines that a smelter to which an order is issued under this section is in violation of any requirement of subsection (c) or (d), he shall—

(1) enforce such requirement under section 7413 of this title,

(2) (after notice and opportunity for public hearing) revoke such order and enforce compliance with the requirement with respect to which such order was granted,

(3) give notice of noncompliance and commence action under section 7420 of this title, or

(4) take any appropriate combination of such actions.

(July 14, 1955, ch. 360, title I, §119, as added Pub. L. 95–95, title I, §117(b), Aug. 7, 1977, 91 Stat. 712; amended Pub. L. 95–190, §14(a)(25)–(27), Nov. 16, 1977, 91 Stat. 1401.)

REFERENCES IN TEXT

Section 7413(d) of this title, referred to in subsec. (a)(2)(A), was amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders.

PRIOR PROVISIONS

A prior section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, §3, 88 Stat. 248, was classified to section 1857c–10 of this title and provided for the authority to deal with energy shortages, prior to repeal by Pub. L. 95–95, title I, §112(b)(1), Aug. 7, 1977, 91 Stat. 709, which provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to section 7413(d)(5) of this title.

AMENDMENTS

1977—Subsec. (a)(3). Pub. L. 95–190, §14(a)(25), added par. (3).

Subsec. (d)(3). Pub. L. 95–190, §14(a)(26), substituted ''7621'' for ''7619''.

Subsec. (e). Pub. L. 95–190, §14(a)(27), substituted ''an order under this section'' for ''such order''.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7420. Noncompliance penalty

(a) Assessment and collection

(1)(A) Not later than 6 months after August 7, 1977, and after notice and opportunity for a public hearing, the Administrator shall promulgate regulations requiring the assessment and collection of a noncompliance penalty against persons referred to in paragraph (2)(A).

(B)(i) Each State may develop and submit to the Administrator a plan for carrying out this section in such State. If the Administrator finds that the State plan meets the requirements of this section, he may delegate to such State any authority he has to carry out this section.

(ii) Notwithstanding a delegation to a State under clause (i), the Administrator may carry out this section in such State under the circumstances described in subsection (b)(2)(B).

(2)(A) Except as provided in subparagraph (B) or (C) of this paragraph, the State or the Administrator shall assess and collect a noncompliance penalty against every person who owns or operates—

(i) a major stationary source (other than a primary nonferrous smelter which has received a primary nonferrous smelter order under section 7419 of this title), which is not in compliance with any emission limitation, emission standard or compliance schedule under any applicable implementation plan (whether or not such source is subject to a Federal or State consent decree), or

(ii) a stationary source which is not in compliance with an emission limitation, emission standard, standard of performance, or other requirement established under section 7411, 7477, 7603, or 7412 of this title, or

(iii) a stationary source which is not in compliance with any requirement of subchapter IV–A, V, or VI of this chapter, or

(iv) any source referred to in clause (i), (ii), or (iii) (for which an extension, order, or suspension referred to in subparagraph (B), or Federal or State consent decree is in effect), or a primary nonferrous smelter which has received a primary nonferrous smelter order under section 7419 of this title which is not in compliance with any interim emission control requirement or schedule of compliance under such extension, order, suspension, or consent decree.

For purposes of subsection (d)(2), in the case of a penalty assessed with respect to a source re-

ferred to in clause (iii) of this subparagraph, the costs referred to in such subsection (d)(2) shall be the economic value of noncompliance with the interim emission control requirement or the remaining steps in the schedule of compliance referred to in such clause.

(B) Notwithstanding the requirements of subparagraph (A)(i) and (ii), the owner or operator of any source shall be exempted from the duty to pay a noncompliance penalty under such requirements with respect to that source if, in accordance with the procedures in subsection (b)(5), the owner or operator demonstrates that the failure of such source to comply with any such requirement is due solely to—

(i) a conversion by such source from the burning of petroleum products or natural gas, or both, as the permanent primary energy source to the burning of coal pursuant to an order under section 7413(d)(5)[1] of this title or section 1857c–10[1] of this title (as in effect before August 7, 1977);

(ii) in the case of a coal-burning source granted an extension under the second sentence of section 1857c–10(c)(1)[1] of this title (as in effect before August 7, 1977), a prohibition from using petroleum products or natural gas or both, by reason of an order under the provisions of section 792(a) and (b) of title 15 or under any legislation which amends or supersedes such provisions;

(iii) the use of innovative technology sanctioned by an enforcement order under section 7413(d)(4)[1] of this title;

(iv) an inability to comply with any such requirement, for which inability the source has received an order under section 7413(d)[1] of this title (or an order under section 7413 of this title issued before August 7, 1977) which has the effect of permitting a delay or violation of any requirement of this chapter (including a requirement of an applicable implementation plan) which inability results from reasons entirely beyond the control of the owner or operator of such source or of any entity controlling, controlled by, or under common control with the owner or operator of such source; or

(v) the conditions by reason of which a temporary emergency suspension is authorized under section 7410(f) or (g) of this title.

An exemption under this subparagraph shall cease to be effective if the source fails to comply with the interim emission control requirements or schedules of compliance (including increments of progress) under any such extension, order, or suspension.

(C) The Administrator may, after notice and opportunity for public hearing, exempt any source from the requirements of this section with respect to a particular instance of noncompliance if he finds that such instance of noncompliance is de minimis in nature and in duration.

(b) Regulations

Regulations under subsection (a) shall—

(1) permit the assessment and collection of such penalty by the State if the State has a delegation of authority in effect under subsection (a)(1)(B)(i) of this section;

(2) provide for the assessment and collection of such penalty by the Administrator, if—

(A) the State does not have a delegation of authority in effect under subsection (a)(1)(B)(i), or

(B) the State has such a delegation in effect but fails with respect to any particular person or source to assess or collect the penalty in accordance with the requirements of this section;

(3) require the States, or in the event the States fail to do so, the Administrator, to give a brief but reasonably specific notice of noncompliance under this section to each person referred to in subsection (a)(2)(A) with respect to each source owned or operated by such person which is not in compliance as provided in such subsection, not later than July 1, 1979, or thirty days after the discovery of such noncompliance, whichever is later;

(4) require each person to whom notice is given under paragraph (3) to—

(A) calculate the amount of the penalty owed (determined in accordance with subsection (d)(2)) and the schedule of payments (determined in accordance with subsection (d)(3)) for each such source and, within forty-five days after the issuance of such notice or after the denial of a petition under subparagraph (B), to submit that calculation and proposed schedule, together with the information necessary for an independent verification thereof, to the State and to the Administrator, or

(B) submit a petition, within forty–five days after the issuance of such notice, challenging such notice of noncompliance or alleging entitlement to an exemption under subsection (a)(2)(B) with respect to a particular source;

(5) require the Administrator to provide a hearing on the record (within the meaning of subchapter II of chapter 5 of title 5) and to make a decision on such petition (including findings of fact and conclusions of law) not later than ninety days after the receipt of any petition under paragraph (4)(B), unless the State agrees to provide a hearing which is substantially similar to such a hearing on the record and to make a decision on such petition (including such findings and conclusions) within such ninety-day period;

(6)(A) authorize the Administrator on his own initiative to review the decision of the State under paragraph (5) and disapprove it if it is not in accordance with the requirements of this section, and (B) require the Administrator to do so not later than sixty days after receipt of a petition under this subparagraph, notice, and public hearing and a showing by such petitioner that the State decision under paragraph (5) is not in accordance with the requirements of this section;

(7) require payment, in accordance with subsection (d), of the penalty by each person to whom notice of noncompliance is given under paragraph (3) with respect to each noncomplying source for which such notice is given unless there has been a final determination granting a petition under paragraph (4)(B) with respect to such source;

[1] See References in Text note below.

(8) authorize the State or the Administrator to adjust (and from time to time to readjust) the amount of the penalty assessment calculated or the payment schedule proposed by such owner or operator under paragraph (4), if the Administrator finds after notice and opportunity for a hearing on the record that the penalty or schedule does not meet the requirements of this section; and

(9) require a final adjustment of the penalty within 180 days after such source comes into compliance in accordance with subsection (d)(4).

In any case in which the State establishes a noncompliance penalty under this section, the State shall provide notice thereof to the Administrator. A noncompliance penalty established by a State under this section shall apply unless the Administrator, within ninety days after the date of receipt of notice of the State penalty assessment under this section, objects in writing to the amount of the penalty as less than would be required to comply with guidelines established by the Administrator. If the Administrator objects, he shall immediately establish a substitute noncompliance penalty applicable to such source.

(c) Contract to assist in determining amount of penalty assessment or payment schedule

If the owner or operator of any stationary source to whom a notice is issued under subsection (b)(3)—

(1) does not submit a timely petition under subsection (b)(4)(B), or

(2) submits a petition under subsection (b)(4)(B) which is denied, and

fails to submit a calculation of the penalty assessment, a schedule for payment, and the information necessary for independent verification thereof, the State (or the Administrator, as the case may be) may enter into a contract with any person who has no financial interest in the owner or operator of the source (or in any person controlling, controlled by or under common control with such source) to assist in determining the amount of the penalty assessment or payment schedule with respect to such source. The cost of carrying out such contract may be added to the penalty to be assessed against the owner or operator of such source.

(d) Payment

(1) All penalties assessed by the Administrator under this section shall be paid to the United States Treasury. All penalties assessed by the State under this section shall be paid to such State.

(2) The amount of the penalty which shall be assessed and collected with respect to any source under this section shall be equal to—

(A) the amount determined in accordance with regulations promulgated by the Administrator under subsection (a), which is no less than the economic value which a delay in compliance beyond July 1, 1979, may have for the owner of such source, including the quarterly equivalent of the capital costs of compliance and debt service over a normal amortization period, not to exceed ten years, operation and maintenance costs foregone as a result of noncompliance, and any additional economic value which such a delay may have for the owner or operator of such source, minus

(B) the amount of any expenditure made by the owner or operator of that source during any such quarter for the purpose of bringing that source into, and maintaining compliance with, such requirement, to the extent that such expenditures have not been taken into account in the calculation of the penalty under subparagraph (A).

To the extent that any expenditure under subparagraph (B) made during any quarter is not subtracted for such quarter from the costs under subparagraph (A), such expenditure may be subtracted for any subsequent quarter from such costs. In no event shall the amount paid be less than the quarterly payment minus the amount attributed to actual cost of construction.

(3)(A) The assessed penalty required under this section shall be paid in quarterly installments for the period of covered noncompliance. All quarterly payments (determined without regard to any adjustment or any subtraction under paragraph (2)(B)) after the first payment shall be equal.

(B) The first payment shall be due on the date six months after the date of issuance of the notice of noncompliance under subsection (b)(3) with respect to any source or on January 1, 1980, whichever is later. Such first payment shall be in the amount of the quarterly installment for the upcoming quarter, plus the amount owed for any preceding period within the period of covered noncompliance for such source.

(C) For the purpose of this section, the term ''period of covered noncompliance'' means the period which begins—

(i) two years after August 7, 1977, in the case of a source for which notice of noncompliance under subsection (b)(3) is issued on or before the date two years after August 7, 1977, or

(ii) on the date of issuance of the notice of noncompliance under subsection (b)(3), in the case of a source for which such notice is issued after July 1, 1979,

and ending on the date on which such source comes into (or for the purpose of establishing the schedule of payments, is estimated to come into) compliance with such requirement.

(4) Upon making a determination that a source with respect to which a penalty has been paid under this section is in compliance and is maintaining compliance with the applicable requirement, the State (or the Administrator as the case may be) shall review the actual expenditures made by the owner or operator of such source for the purpose of attaining and maintaining compliance, and shall within 180 days after such source comes into compliance—

(A) provide reimbursement with interest (to be paid by the State or Secretary of the Treasury, as the case may be) at appropriate prevailing rates (as determined by the Secretary of the Treasury) for any overpayment by such person, or

(B) assess and collect an additional payment with interest at appropriate prevailing rates (as determined by the Secretary of the Treasury) for any underpayment by such person.

(5) Any person who fails to pay the amount of any penalty with respect to any source under this section on a timely basis shall be required to pay in addition a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be in an amount equal to 20 percent of the aggregate amount of such person's penalties and nonpayment penalties with respect to such source which are unpaid as of the beginning of such quarter.

(e) Judicial review

Any action pursuant to this section, including any objection of the Administrator under the last sentence of subsection (b), shall be considered a final action for purposes of judicial review of any penalty under section 7607 of this title.

(f) Other orders, payments, sanctions, or requirements

Any orders, payments, sanctions, or other requirements under this section shall be in addition to any other permits, orders, payments, sanctions, or other requirements established under this chapter, and shall in no way affect any civil or criminal enforcement proceedings brought under any provision of this chapter or State or local law.

(g) More stringent emission limitations or other requirements

In the case of any emission limitation or other requirement approved or promulgated by the Administrator under this chapter after August 7, 1977, which is more stringent than the emission limitation or requirement for the source in effect prior to such approval or promulgation, if any, or where there was no emission limitation or requirement approved or promulgated before August 7, 1977, the date for imposition of the non-compliance penalty under this section, shall be either July 1, 1979, or the date on which the source is required to be in full compliance with such emission limitation or requirement, whichever is later, but in no event later than three years after the approval or promulgation of such emission limitation or requirement.

(July 14, 1955, ch. 360, title I, §120, as added Pub. L. 95–95, title I, §118, Aug. 7, 1977, 91 Stat. 714; amended Pub. L. 95–190, §14(a)(28)–(38), Nov. 16, 1977, 91 Stat. 1401; Pub. L. 101–549, title VII, §710(a), Nov. 15, 1990, 104 Stat. 2684.)

REFERENCES IN TEXT

Section 7413(d) of this title, referred to in subsec. (a)(2)(B), was amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders.

Section 1857c–10 of this title (as in effect before August 7, 1977), referred to in subsec. (a)(2)(B)(i), was in the original "section 119 (as in effect before the date of the enactment of the Clean Air Act Amendments of 1977)", meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, §3, 88 Stat. 248, (which was classified to section 1857c–10 of this title) as in effect prior to the enactment of Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95–95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93–319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to subsec. (d)(5) of section 7413 of this title. Section 7413(d) of this title was subsequently amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders. Section 117(b) of Pub. L. 95–95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

Section 1857c–10(c)(1) of this title (as in effect before August 7, 1977), referred to in subsec. (a)(2)(B)(ii), was in the original "section 119(c)(1) (as in effect before the date of the enactment of the Clean Air Act Amendments of 1977)." See paragraph set out above for explanation of codification.

AMENDMENTS

1990—Subsec. (a)(2)(A). Pub. L. 101–549 inserted reference to sections 7477 and 7603 of this title in cl. (ii), added cl. (iii), and redesignated former cl. (iii) as (iv) and inserted reference to cl. (iii).

1977—Subsec. (a)(2)(A). Pub. L. 95–190, §14(a)(28), (29), in cls. (i) and (iii) inserted provisions relating to consent decrees wherever appearing.

Subsec. (a)(2)(B). Pub. L. 95–190, §14(a)(30), (31), in cl. (i) inserted reference to section 7413(d)(5) of this title, and in cls. (i) and (ii) inserted provision relating to orders in effect under section 1857c–10 of this title before Aug. 7, 1977, wherever appearing.

Subsec. (b). Pub. L. 95–190, §14(a)(34)–(36), in closing provisions inserted provisions relating to notice to the Administrator when a noncompliance penalty is established by a State, and substituted references to noncompliance for references to delayed compliance in two places, "source" for "facility", and "receipt of notice of the State penalty assessment" for "publication of the proposed penalty".

Subsec. (b)(2)(A). Pub. L. 95–190, §14(a)(33), substituted "(a)(1)(B)(i)" for "(e)".

Subsec. (b)(8). Pub. L. 95–190, §14(a)(32), substituted "(4)" for "(6)".

Subsec. (d)(2)(A). Pub. L. 95–190, §14(a)(37), inserted provisions relating to inclusion of the economic value of a delay in compliance, and substituted "such a delay" for "a delay in compliance beyond July 1, 1979,".

Subsec. (e). Pub. L. 95–190, §14(a)(38), substituted "subsection, shall" for "subsection shall".

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7421. Consultation

In carrying out the requirements of this chapter requiring applicable implementation plans to contain—

(1) any transportation controls, air quality maintenance plan requirements or preconstruction review of direct sources of air pollution, or

(2) any measure referred to—

(A) in part D (pertaining to nonattainment requirements), or

(B) in part C (pertaining to prevention of significant deterioration),

and in carrying out the requirements of section 7413(d)[1] of this title (relating to certain enforcement orders), the State shall provide a satisfactory process of consultation with general purpose local governments, designated organizations of elected officials of local governments and any Federal land manager having authority

[1] See References in Text note below.

over Federal land to which the State plan applies, effective with respect to any such requirement which is adopted more than one year after August 7, 1977, as part of such plan. Such process shall be in accordance with regulations promulgated by the Administrator to assure adequate consultation. The Administrator shall update as necessary the original regulations required and promulgated under this section (as in effect immediately before November 15, 1990) to ensure adequate consultation. Only a general purpose unit of local government, regional agency, or council of governments adversely affected by action of the Administrator approving any portion of a plan referred to in this subsection[2] may petition for judicial review of such action on the basis of a violation of the requirements of this section.

(July 14, 1955, ch. 360, title I, §121, as added Pub. L. 95–95, title I, §119, Aug. 7, 1977, 91 Stat. 719; amended Pub. L. 101–549, title I, §108(h), Nov. 15, 1990, 104 Stat. 2467.)

REFERENCES IN TEXT

Section 7413(d) of this title, referred to in text, was amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders.

AMENDMENTS

1990—Pub. L. 101–549 amended penultimate sentence generally. Prior to amendment, penultimate sentence read as follows: ''Such regulations shall be promulgated after notice and opportunity for public hearing and not later than 6 months after August 7, 1977.''

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7422. Listing of certain unregulated pollutants

(a) Radioactive pollutants, cadmium, arsenic, and polycyclic organic matter

Not later than one year after August 7, 1977 (two years for radioactive pollutants) and after notice and opportunity for public hearing, the Administrator shall review all available relevant information and determine whether or not emissions of radioactive pollutants (including source material, special nuclear material, and byproduct material), cadmium, arsenic and polycyclic organic matter into the ambient air will cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health. If the Administrator makes an affirmative determination with respect to any such substance, he shall simultaneously with such determination include such substance in the list published under section 7408(a)(1) or 7412(b)(1)(A)[1] of this title (in the case of a substance which, in the judgment of the Administrator, causes, or contributes to, air pollution which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness), or shall include each category of stationary sources emitting such substance in significant amounts in the list published under section 7411(b)(1)(A) of this title, or take any combination of such actions.

(b) Revision authority

Nothing in subsection (a) shall be construed to affect the authority of the Administrator to revise any list referred to in subsection (a) with respect to any substance (whether or not enumerated in subsection (a)).

(c) Consultation with Nuclear Regulatory Commission; interagency agreement; notice and hearing

(1) Before listing any source material, special nuclear,[2] or byproduct material (or component or derivative thereof) as provided in subsection (a), the Administrator shall consult with the Nuclear Regulatory Commission.

(2) Not later than six months after listing any such material (or component or derivative thereof) the Administrator and the Nuclear Regulatory Commission shall enter into an interagency agreement with respect to those sources or facilities which are under the jurisdiction of the Commission. This agreement shall, to the maximum extent practicable consistent with this chapter, minimize duplication of effort and conserve administrative resources in the establishment, implementation, and enforcement of emission limitations, standards of performance, and other requirements and authorities (substantive and procedural) under this chapter respecting the emission of such material (or component or derivative thereof) from such sources or facilities.

(3) In case of any standard or emission limitation promulgated by the Administrator, under this chapter or by any State (or the Administrator) under any applicable implementation plan under this chapter, if the Nuclear Regulatory Commission determines, after notice and opportunity for public hearing that the application of such standard or limitation to a source or facility within the jurisdiction of the Commission would endanger public health or safety, such standard or limitation shall not apply to such facilities or sources unless the President determines otherwise within ninety days from the date of such finding.

(July 14, 1955, ch. 360, title I, §122, as added Pub. L. 95–95, title I, §120(a), Aug. 7, 1977, 91 Stat. 720.)

REFERENCES IN TEXT

Section 7412(b)(1), referred to in subsec. (a), was amended generally by Pub. L. 101–549, title III, §301, Nov. 15, 1990, 104 Stat. 2531, and, as so amended, no longer contains a subpar. (A).

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

TRANSFER OF FUNCTIONS

For transfer of certain functions from Nuclear Regulatory Commission to Chairman thereof, see Reorg.

[2] So in original.

[1] See References in Text note below.

[2] So in original. The word ''material'' probably should precede the comma.

Plan No. 1 of 1980, 45 F.R. 40561, 94 Stat. 3585, set out as a note under section 5841 of this title.

STUDY BY ADMINISTRATOR OF ENVIRONMENTAL PROTECTION AGENCY

Pub. L. 95–95, title I, § 120(b), Aug. 7, 1977, 91 Stat. 721, directed Administrator of Environmental Protection Agency to conduct a study, in conjunction with other appropriate agencies, concerning effect on public health and welfare of sulfates, radioactive pollutants, cadmium, arsenic, and polycyclic organic matter which are present or may reasonably be anticipated to occur in the ambient air, such study to include a thorough investigation of how sulfates are formed and how to protect public health and welfare from the injurious effects, if any, of sulfates, cadmium, arsenic, and polycyclic organic matter.

§ 7423. Stack heights

(a) Heights in excess of good engineering practice; other dispersion techniques

The degree of emission limitation required for control of any air pollutant under an applicable implementation plan under this subchapter shall not be affected in any manner by—

(1) so much of the stack height of any source as exceeds good engineering practice (as determined under regulations promulgated by the Administrator), or

(2) any other dispersion technique.

The preceding sentence shall not apply with respect to stack heights in existence before December 31, 1970, or dispersion techniques implemented before such date. In establishing an emission limitation for coal-fired steam electric generating units which are subject to the provisions of section 7418 of this title and which commenced operation before July 1, 1957, the effect of the entire stack height of stacks for which a construction contract was awarded before February 8, 1974, may be taken into account.

(b) Dispersion technique

For the purpose of this section, the term ''dispersion technique'' includes any intermittent or supplemental control of air pollutants varying with atmospheric conditions.

(c) Regulations; good engineering practice

Not later than six months after August 7, 1977, the Administrator, shall after notice and opportunity for public hearing, promulgate regulations to carry out this section. For purposes of this section, good engineering practice means, with respect to stack heights, the height necessary to insure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain obstacles (as determined by the Administrator). For purposes of this section such height shall not exceed two and a half times the height of such source unless the owner or operator of the source demonstrates, after notice and opportunity for public hearing, to the satisfaction of the Administrator, that a greater height is necessary as provided under the preceding sentence. In no event may the Administrator prohibit any increase in any stack height or restrict in any manner the stack height of any source.

(July 14, 1955, ch. 360, title I, § 123, as added Pub. L. 95–95, title I, § 121, Aug. 7, 1977, 91 Stat. 721.)

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7424. Assurance of adequacy of State plans

(a) State review of implementation plans which relate to major fuel burning sources

As expeditiously as practicable but not later than one year after August 7, 1977, each State shall review the provisions of its implementation plan which relate to major fuel burning sources and shall determine—

(1) the extent to which compliance with requirements of such plan is dependent upon the use by major fuel burning stationary sources of petroleum products or natural gas,

(2) the extent to which such plan may reasonably be anticipated to be inadequate to meet the requirements of this chapter in such State on a reliable and long-term basis by reason of its dependence upon the use of such fuels, and

(3) the extent to which compliance with the requirements of such plan is dependent upon use of coal or coal derivatives which is not locally or regionally available.

Each State shall submit the results of its review and its determination under this paragraph to the Administrator promptly upon completion thereof.

(b) Plan revision

(1) Not later than eighteen months after August 7, 1977, the Administrator shall review the submissions of the States under subsection (a) and shall require each State to revise its plan if, in the judgment of the Administrator, such plan revision is necessary to assure that such plan will be adequate to assure compliance with the requirements of this chapter in such State on a reliable and long-term basis, taking into account the actual or potential prohibitions on use of petroleum products or natural gas, or both, under any other authority of law.

(2) Before requiring a plan revision under this subsection, with respect to any State the Administrator shall take into account the report of the review conducted by such State under paragraph (1) and shall consult with the Governor of the State respecting such required revision.

(July 14, 1955, ch. 360, title I, § 124, as added Pub. L. 95–95, title I, § 122, Aug. 7, 1977, 91 Stat. 722.)

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7425. Measures to prevent economic disruption or unemployment

(a) Determination that action is necessary

After notice and opportunity for a public hearing—

(1) the Governor of any State in which a major fuel burning stationary source referred to in this subsection (or class or category thereof) is located,
(2) the Administrator, or
(3) the President (or his designee),

may determine that action under subsection (b) of this section is necessary to prevent or minimize significant local or regional economic disruption or unemployment which would otherwise result from use by such source (or class or category) of—

(A) coal or coal derivatives other than locally or regionally available coal,
(B) petroleum products,
(C) natural gas, or
(D) any combination of fuels referred to in subparagraphs (A) through (C),

to comply with the requirements of a State implementation plan.

(b) Use of locally or regionally available coal or coal derivatives to comply with implementation plan requirements

Upon a determination under subsection (a)—
(1) such Governor, with the written consent of the President or his designee,
(2) the President's designee with the written consent of such Governor, or
(3) the President

may by rule or order prohibit any such major fuel burning stationary source (or class or category thereof) from using fuels other than locally or regionally available coal or coal derivatives to comply with implementation plan requirements. In taking any action under this subsection, the Governor, the President, or the President's designee as the case may be, shall take into account, the final cost to the consumer of such an action.

(c) Contracts; schedules

The Governor, in the case of action under subsection (b)(1), or the Administrator, in the case of an action under subsection (b)(2) or (3) shall, by rule or order, require each source to which such action applies to—

(1) enter into long-term contracts of at least ten years in duration (except as the President or his designee may otherwise permit or require by rule or order for good cause) for supplies of regionally available coal or coal derivatives,
(2) enter into contracts to acquire any additional means of emission limitation which the Administrator or the State determines may be necessary to comply with the requirements of this chapter while using such coal or coal derivatives as fuel, and
(3) comply with such schedules (including increments of progress), timetables and other requirements as may be necessary to assure compliance with the requirements of this chapter.

Requirements under this subsection shall be established simultaneously with, and as a condition of, any action under subsection (b).

(d) Existing or new major fuel burning stationary sources

This section applies only to existing or new major fuel burning stationary sources—

(1) which have the design capacity to produce 250,000,000 Btu's per hour (or its equivalent), as determined by the Administrator, and
(2) which are not in compliance with the requirements of an applicable implementation plan or which are prohibited from burning oil or natural gas, or both, under any other authority of law.

(e) Actions not to be deemed modifications of major fuel burning stationary sources

Except as may otherwise be provided by rule by the State or the Administrator for good cause, any action required to be taken by a major fuel burning stationary source under this section shall not be deemed to constitute a modification for purposes of section 7411(a)(2) and (4) of this title.

(f) Treatment of prohibitions, rules, or orders as requirements or parts of plans under other provisions

For purposes of sections 7413 and 7420 of this title a prohibition under subsection (b), and a corresponding rule or order under subsection (c), shall be treated as a requirement of section 7413 of this title. For purposes of any plan (or portion thereof) promulgated under section 7410(c) of this title, any rule or order under subsection (c) corresponding to a prohibition under subsection (b), shall be treated as a part of such plan. For purposes of section 7413 of this title, a prohibition under subsection (b), applicable to any source, and a corresponding rule or order under subsection (c), shall be treated as part of the applicable implementation plan for the State in which subject source is located.

(g) Delegation of Presidential authority

The President may delegate his authority under this section to an officer or employee of the United States designated by him on a case-by-case basis or in any other manner he deems suitable.

(h) "Locally or regionally available coal or coal derivatives" defined

For the purpose of this section the term ''locally or regionally available coal or coal derivatives'' means coal or coal derivatives which is, or can in the judgment of the State or the Administrator feasibly be, mined or produced in the local or regional area (as determined by the Administrator) in which the major fuel burning stationary source is located.

(July 14, 1955, ch. 360, title I, §125, as added Pub. L. 95–95, title I, §122, Aug. 7, 1977, 91 Stat. 722.)

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7426. Interstate pollution abatement

(a) Written notice to all nearby States

Each applicable implementation plan shall—
(1) require each major proposed new (or modified) source—
(A) subject to part C (relating to significant deterioration of air quality) or

(B) which may significantly contribute to levels of air pollution in excess of the national ambient air quality standards in any air quality control region outside the State in which such source intends to locate (or make such modification),

to provide written notice to all nearby States the air pollution levels of which may be affected by such source at least sixty days prior to the date on which commencement of construction is to be permitted by the State providing notice, and

(2) identify all major existing stationary sources which may have the impact described in paragraph (1) with respect to new or modified sources and provide notice to all nearby States of the identity of such sources not later than three months after August 7, 1977.

(b) Petition for finding that major sources emit or would emit prohibited air pollutants

Any State or political subdivision may petition the Administrator for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of the prohibition of section 7410(a)(2)(D)(ii) of this title or this section. Within 60 days after receipt of any petition under this subsection and after public hearing, the Administrator shall make such a finding or deny the petition.

(c) Violations; allowable continued operation

Notwithstanding any permit which may have been granted by the State in which the source is located (or intends to locate), it shall be a violation of this section and the applicable implementation plan in such State—

(1) for any major proposed new (or modified) source with respect to which a finding has been made under subsection (b) to be constructed or to operate in violation of the prohibition of section 7410(a)(2)(D)(ii) of this title or this section, or

(2) for any major existing source to operate more than three months after such finding has been made with respect to it.

The Administrator may permit the continued operation of a source referred to in paragraph (2) beyond the expiration of such three-month period if such source complies with such emission limitations and compliance schedules (containing increments of progress) as may be provided by the Administrator to bring about compliance with the requirements contained in section 7410(a)(2)(D)(ii) of this title or this section as expeditiously as practicable, but in no case later than three years after the date of such finding. Nothing in the preceding sentence shall be construed to preclude any such source from being eligible for an enforcement order under section 7413(d)[1] of this title after the expiration of such period during which the Administrator has permitted continuous operation.

(July 14, 1955, ch. 360, title I, § 126, as added Pub. L. 95–95, title I, § 123, Aug. 7, 1977, 91 Stat. 724; amended Pub. L. 95–190, § 14(a)(39), Nov. 16, 1977, 91 Stat. 1401; Pub. L. 101–549, title I, § 109(a), Nov. 15, 1990, 104 Stat. 2469.)

[1] See References in Text note below.

REFERENCES IN TEXT

Section 7413(d) of this title, referred to in subsec. (c), was amended generally by Pub. L. 101–549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders.

AMENDMENTS

1990—Subsec. (b). Pub. L. 101–549, § 109(a)(1), inserted ''or group of stationary sources'' after ''any major source'' and substituted ''section 7410(a)(2)(D)(ii) of this title or this section'' for ''section 7410(a)(2)(E)(i) of this title''.

Subsec. (c). Pub. L. 101–549, § 109(a)(2)(A), which directed the insertion of ''this section and'' after ''violation of'', was executed by making the insertion after first reference to ''violation of'' to reflect the probable intent of Congress.

Pub. L. 101–549, § 109(a)(2)(B), substituted ''section 7410(a)(2)(D)(ii) of this title or this section'' for ''section 7410(a)(2)(E)(i) of this title'' in par. (1) and penultimate sentence.

1977—Subsec. (a)(1). Pub. L. 95–190 substituted ''(relating to significant deterioration of air quality)'' for '', relating to significant deterioration of air quality''.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7427. Public notification

(a) Warning signs; television, radio, or press notices or information

Each State plan shall contain measures which will be effective to notify the public during any calendar[1] on a regular basis of instances or areas in which any national primary ambient air quality standard is exceeded or was exceeded during any portion of the preceding calendar year to advise the public of the health hazards associated with such pollution, and to enhance public awareness of the measures which can be taken to prevent such standards from being exceeded and the ways in which the public can participate in regulatory and other efforts to improve air quality. Such measures may include the posting of warning signs on interstate highway access points to metropolitan areas or television, radio, or press notices or information.

(b) Grants

The Administrator is authorized to make grants to States to assist in carrying out the requirements of subsection (a).

(July 14, 1955, ch. 360, title I, § 127, as added Pub. L. 95–95, title I, § 124, Aug. 7, 1977, 91 Stat. 725.)

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7428. State boards

(a)[1] Not later than the date one year after August 7, 1977, each applicable implementation plan shall contain requirements that—

(1) any board or body which approves permits or enforcement orders under this chapter

[1] So in original. Probably should be ''calendar year''.

[1] So in original. Section enacted without a subsec. (b).

shall have at least a majority of members who represent the public interest and do not derive any significant portion of their income from persons subject to permits or enforcement orders under this chapter, and

(2) any potential conflicts of interest by members of such board or body or the head of an executive agency with similar powers be adequately disclosed.

A State may adopt any requirements respecting conflicts of interest for such boards or bodies or heads of executive agencies, or any other entities which are more stringent than the requirements of paragraph (1) and (2), and the Administrator shall approve any such more stringent requirements submitted as part of an implementation plan.

(July 14, 1955, ch. 360, title I, §128, as added Pub. L. 95–95, title I, §125, Aug. 7, 1977, 91 Stat. 725.)

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7429. Solid waste combustion

(a) New source performance standards

(1) In general

(A) The Administrator shall establish performance standards and other requirements pursuant to section 7411 of this title and this section for each category of solid waste incineration units. Such standards shall include emissions limitations and other requirements applicable to new units and guidelines (under section 7411(d) of this title and this section) and other requirements applicable to existing units.

(B) Standards under section 7411 of this title and this section applicable to solid waste incineration units with capacity greater than 250 tons per day combusting municipal waste shall be promulgated not later than 12 months after November 15, 1990. Nothing in this subparagraph shall alter any schedule for the promulgation of standards applicable to such units under section 7411 of this title pursuant to any settlement and consent decree entered by the Administrator before November 15, 1990: *Provided*, That, such standards are subsequently modified pursuant to the schedule established in this subparagraph to include each of the requirements of this section.

(C) Standards under section 7411 of this title and this section applicable to solid waste incineration units with capacity equal to or less than 250 tons per day combusting municipal waste and units combusting hospital waste, medical waste and infectious waste shall be promulgated not later than 24 months after November 15, 1990.

(D) Standards under section 7411 of this title and this section applicable to solid waste incineration units combusting commercial or industrial waste shall be proposed not later than 36 months after November 15, 1990, and promulgated not later than 48 months after November 15, 1990.

(E) Not later than 18 months after November 15, 1990, the Administrator shall publish a schedule for the promulgation of standards under section 7411 of this title and this section applicable to other categories of solid waste incineration units.

(2) Emissions standard

Standards applicable to solid waste incineration units promulgated under section 7411 of this title and this section shall reflect the maximum degree of reduction in emissions of air pollutants listed under section[1] (a)(4) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category. The Administrator may distinguish among classes, types (including mass-burn, refuse-derived fuel, modular and other types of units), and sizes of units within a category in establishing such standards. The degree of reduction in emissions that is deemed achievable for new units in a category shall not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator. Emissions standards for existing units in a category may be less stringent than standards for new units in the same category but shall not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category (excluding units which first met lowest achievable emissions rates 18 months before the date such standards are proposed or 30 months before the date such standards are promulgated, whichever is later).

(3) Control methods and technologies

Standards under section 7411 of this title and this section applicable to solid waste incineration units shall be based on methods and technologies for removal or destruction of pollutants before, during, or after combustion, and shall incorporate for new units siting requirements that minimize, on a site specific basis, to the maximum extent practicable, potential risks to public health or the environment.

(4) Numerical emissions limitations

The performance standards promulgated under section 7411 of this title and this section and applicable to solid waste incineration units shall specify numerical emission limitations for the following substances or mixtures: particulate matter (total and fine), opacity (as appropriate), sulfur dioxide, hydrogen chloride, oxides of nitrogen, carbon monoxide, lead, cadmium, mercury, and dioxins and dibenzofurans. The Administrator may promulgate numerical emissions limitations or provide for the monitoring of postcombustion concentrations of surrogate substances, parameters or periods of residence time in excess of stated temperatures with respect to pollutants other than those listed in this paragraph.

(5) Review and revision

Not later than 5 years following the initial promulgation of any performance standards

[1] So in original. Probably should be ''subsection''.

and other requirements under this section and section 7411 of this title applicable to a category of solid waste incineration units, and at 5 year intervals thereafter, the Administrator shall review, and in accordance with this section and section 7411 of this title, revise such standards and requirements.

(b) Existing units

(1) Guidelines

Performance standards under this section and section 7411 of this title for solid waste incineration units shall include guidelines promulgated pursuant to section 7411(d) of this title and this section applicable to existing units. Such guidelines shall include, as provided in this section, each of the elements required by subsection (a) (emissions limitations, notwithstanding any restriction in section 7411(d) of this title regarding issuance of such limitations), subsection (c) (monitoring), subsection (d) (operator training), subsection (e) (permits), and subsection (h)(4)[2] (residual risk).

(2) State plans

Not later than 1 year after the Administrator promulgates guidelines for a category of solid waste incineration units, each State in which units in the category are operating shall submit to the Administrator a plan to implement and enforce the guidelines with respect to such units. The State plan shall be at least as protective as the guidelines promulgated by the Administrator and shall provide that each unit subject to the guidelines shall be in compliance with all requirements of this section not later than 3 years after the State plan is approved by the Administrator but not later than 5 years after the guidelines were promulgated. The Administrator shall approve or disapprove any State plan within 180 days of the submission, and if a plan is disapproved, the Administrator shall state the reasons for disapproval in writing. Any State may modify and resubmit a plan which has been disapproved by the Administrator.

(3) Federal plan

The Administrator shall develop, implement and enforce a plan for existing solid waste incineration units within any category located in any State which has not submitted an approvable plan under this subsection with respect to units in such category within 2 years after the date on which the Administrator promulgated the relevant guidelines. Such plan shall assure that each unit subject to the plan is in compliance with all provisions of the guidelines not later than 5 years after the date the relevant guidelines are promulgated.

(c) Monitoring

The Administrator shall, as part of each performance standard promulgated pursuant to subsection (a) and section 7411 of this title, promulgate regulations requiring the owner or operator of each solid waste incineration unit—

(1) to monitor emissions from the unit at the point at which such emissions are emitted into the ambient air (or within the stack, combustion chamber or pollution control equipment, as appropriate) and at such other points as necessary to protect public health and the environment;

(2) to monitor such other parameters relating to the operation of the unit and its pollution control technology as the Administrator determines are appropriate; and

(3) to report the results of such monitoring.

Such regulations shall contain provisions regarding the frequency of monitoring, test methods and procedures validated on solid waste incineration units, and the form and frequency of reports containing the results of monitoring and shall require that any monitoring reports or test results indicating an exceedance of any standard under this section shall be reported separately and in a manner that facilitates review for purposes of enforcement actions. Such regulations shall require that copies of the results of such monitoring be maintained on file at the facility concerned and that copies shall be made available for inspection and copying by interested members of the public during business hours.

(d) Operator training

Not later than 24 months after November 15, 1990, the Administrator shall develop and promote a model State program for the training and certification of solid waste incineration unit operators and high-capacity fossil fuel fired plant operators. The Administrator may authorize any State to implement a model program for the training of solid waste incineration unit operators and high-capacity fossil fuel fired plant operators, if the State has adopted a program which is at least as effective as the model program developed by the Administrator. Beginning on the date 36 months after the date on which performance standards and guidelines are promulgated under subsection (a) and section 7411 of this title for any category of solid waste incineration units it shall be unlawful to operate any unit in the category unless each person with control over processes affecting emissions from such unit has satisfactorily completed a training program meeting the requirements established by the Administrator under this subsection.

(e) Permits

Beginning (1) 36 months after the promulgation of a performance standard under subsection (a) and section 7411 of this title applicable to a category of solid waste incineration units, or (2) the effective date of a permit program under subchapter V in the State in which the unit is located, whichever is later, each unit in the category shall operate pursuant to a permit issued under this subsection and subchapter V. Permits required by this subsection may be renewed according to the provisions of subchapter V. Notwithstanding any other provision of this chapter, each permit for a solid waste incineration unit combusting municipal waste issued under this chapter shall be issued for a period of up to 12 years and shall be reviewed every 5 years after date of issuance or reissuance. Each permit shall continue in effect after the date of issuance until the date of termination, unless the

[2] So in original. Probably should be subsection ''(h)(3)''.

Administrator or State determines that the unit is not in compliance with all standards and conditions contained in the permit. Such determination shall be made at regular intervals during the term of the permit, such intervals not to exceed 5 years, and only after public comment and public hearing. No permit for a solid waste incineration unit may be issued under this chapter by an agency, instrumentality or person that is also responsible, in whole or part, for the design and construction or operation of the unit. Notwithstanding any other provision of this subsection, the Administrator or the State shall require the owner or operator of any unit to comply with emissions limitations or implement any other measures, if the Administrator or the State determines that emissions in the absence of such limitations or measures may reasonably be anticipated to endanger public health or the environment. The Administrator's determination under the preceding sentence is a discretionary decision.

(f) Effective date and enforcement

(1) New units

Performance standards and other requirements promulgated pursuant to this section and section 7411 of this title and applicable to new solid waste incineration units shall be effective as of the date 6 months after the date of promulgation.

(2) Existing units

Performance standards and other requirements promulgated pursuant to this section and section 7411 of this title and applicable to existing solid waste incineration units shall be effective as expeditiously as practicable after approval of a State plan under subsection (b)(2) (or promulgation of a plan by the Administrator under subsection (b)(3)) but in no event later than 3 years after the State plan is approved or 5 years after the date such standards or requirements are promulgated, whichever is earlier.

(3) Prohibition

After the effective date of any performance standard, emission limitation or other requirement promulgated pursuant to this section and section 7411 of this title, it shall be unlawful for any owner or operator of any solid waste incineration unit to which such standard, limitation or requirement applies to operate such unit in violation of such limitation, standard or requirement or for any other person to violate an applicable requirement of this section.

(4) Coordination with other authorities

For purposes of sections 7411(e), 7413, 7414, 7416, 7420, 7603, 7604, 7607 of this title and other provisions for the enforcement of this chapter, each performance standard, emission limitation or other requirement established pursuant to this section by the Administrator or a State or local government, shall be treated in the same manner as a standard of performance under section 7411 of this title which is an emission limitation.

(g) Definitions

For purposes of section 306 of the Clean Air Act Amendments of 1990 and this section only—

(1) Solid waste incineration unit

The term ''solid waste incineration unit'' means a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels, and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act [42 U.S.C. 6925]. The term ''solid waste incineration unit'' does not include (A) materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 796(17)(C) of title 16, or qualifying cogeneration facilities, as defined in section 796(18)(B) of title 16, which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or (C) air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

(2) New solid waste incineration unit

The term ''new solid waste incineration unit'' means a solid waste incineration unit the construction of which is commenced after the Administrator proposes requirements under this section establishing emissions standards or other requirements which would be applicable to such unit or a modified solid waste incineration unit.

(3) Modified solid waste incineration unit

The term ''modified solid waste incineration unit'' means a solid waste incineration unit at which modifications have occurred after the effective date of a standard under subsection (a) if (A) the cumulative cost of the modifications, over the life of the unit, exceed 50 per centum of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or (B) the modification is a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under this section or section 7411 of this title.

(4) Existing solid waste incineration unit

The term ''existing solid waste incineration unit'' means a solid waste unit which is not a new or modified solid waste incineration unit.

(5) Municipal waste

The term ''municipal waste'' means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources con-

sisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided that: (A) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (B) an incineration unit shall not be considered to be combusting municipal waste for purposes of section 7411 of this title or this section if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal waste.

(6) Other terms

The terms ''solid waste'' and ''medical waste'' shall have the meanings established by the Administrator pursuant to the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.].

(h) Other authority

(1) State authority

Nothing in this section shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce any regulation, requirement, limitation or standard relating to solid waste incineration units that is more stringent than a regulation, requirement, limitation or standard in effect under this section or under any other provision of this chapter.

(2) Other authority under this chapter

Nothing in this section shall diminish the authority of the Administrator or a State to establish any other requirements applicable to solid waste incineration units under any other authority of law, including the authority to establish for any air pollutant a national ambient air quality standard, except that no solid waste incineration unit subject to performance standards under this section and section 7411 of this title shall be subject to standards under section 7412(d) of this title.

(3) Residual risk

The Administrator shall promulgate standards under section 7412(f) of this title for a category of solid waste incineration units, if promulgation of such standards is required under section 7412(f) of this title. For purposes of this[3] preceding sentence only—

(A) the performance standards under subsection (a) and section 7411 of this title applicable to a category of solid waste incineration units shall be deemed standards under section 7412(d)(2) of this title, and

(B) the Administrator shall consider and regulate, if required, the pollutants listed under subsection (a)(4) and no others.

(4) Acid rain

A solid waste incineration unit shall not be a utility unit as defined in subchapter IV–A: *Provided*, That, more than 80 per centum of its annual average fuel consumption measured on a Btu basis, during a period or periods to be determined by the Administrator, is from a fuel (including any waste burned as a fuel) other than a fossil fuel.

[3] So in original. Probably should be ''the''.

(5) Requirements of parts C and D

No requirement of an applicable implementation plan under section 7475 of this title (relating to construction of facilities in regions identified pursuant to section 7407(d)(1)(A)(ii) or (iii) of this title) or under section 7502(c)(5) of this title (relating to permits for construction and operation in nonattainment areas) may be used to weaken the standards in effect under this section.

(July 14, 1955, ch. 360, title I, § 129, as added Pub. L. 101–549, title III, § 305(a), Nov. 15, 1990, 104 Stat. 2577.)

REFERENCES IN TEXT

Section 306 of the Clean Air Act Amendments of 1990, referred to in subsec. (g), probably means section 306 of Pub. L. 101–549, which is set out as a note under section 6921 of this title.

The Solid Waste Disposal Act, referred to in subsec. (g)(6), is title II of Pub. L. 89–272, Oct. 20, 1965, 79 Stat. 997, as amended generally by Pub. L. 94–580, § 2, Oct. 21, 1976, 90 Stat. 2795, which is classified generally to chapter 82 (§ 6901 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6901 of this title and Tables.

REVIEW OF ACID GAS SCRUBBING REQUIREMENTS

Pub. L. 101–549, title III, § 305(c), Nov. 15, 1990, 104 Stat. 2583, provided that: ''Prior to the promulgation of any performance standard for solid waste incineration units combusting municipal waste under section 111 or section 129 of the Clean Air Act [42 U.S.C. 7411, 7429], the Administrator shall review the availability of acid gas scrubbers as a pollution control technology for small new units and for existing units (as defined in 54 Federal Register 52190 (December 20, 1989)[)], taking into account the provisions of subsection (a)(2) of section 129 of the Clean Air Act.''

§ 7430. Emission factors

Within 6 months after November 15, 1990, and at least every 3 years thereafter, the Administrator shall review and, if necessary, revise, the methods (''emission factors'') used for purposes of this chapter to estimate the quantity of emissions of carbon monoxide, volatile organic compounds, and oxides of nitrogen from sources of such air pollutants (including area sources and mobile sources). In addition, the Administrator shall establish emission factors for sources for which no such methods have previously been established by the Administrator. The Administrator shall permit any person to demonstrate improved emissions estimating techniques, and following approval of such techniques, the Administrator shall authorize the use of such techniques. Any such technique may be approved only after appropriate public participation. Until the Administrator has completed the revision required by this section, nothing in this section shall be construed to affect the validity of emission factors established by the Administrator before November 15, 1990.

(July 14, 1955, ch. 360, title I, § 130, as added Pub. L. 101–549, title VIII, § 804, Nov. 15, 1990, 104 Stat. 2689.)

§ 7431. Land use authority

Nothing in this chapter constitutes an infringement on the existing authority of counties and cities to plan or control land use, and noth-

ing in this chapter provides or transfers authority over such land use.

(July 14, 1955, ch. 360, title I, § 131, as added Pub. L. 101–549, title VIII, § 805, Nov. 15, 1990, 104 Stat. 2689.)

PART B—OZONE PROTECTION

§§ 7450 to 7459. Repealed. Pub. L. 101–549, title VI, § 601, Nov. 15, 1990, 104 Stat. 2648

Section 7450, act July 14, 1955, ch. 360, title I, § 150, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 725, set forth Congressional declaration of purpose.

Section 7451, act July 14, 1955, ch. 360, title I, § 151, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 726, set forth Congressional findings.

Section 7452, act July 14, 1955, ch. 360, title I, § 152, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 726, set forth definitions applicable to this part.

Section 7453, act July 14, 1955, ch. 360, title I, § 153, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 726, related to studies by Environmental Protection Agency.

Section 7454, act July 14, 1955, ch. 360, title I, § 154, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 728; amended Pub. L. 96–88, title V, § 509(b), Oct. 17, 1979, 93 Stat. 695, related to research and monitoring activities by Federal agencies.

Section 7455, act July 14, 1955, ch. 360, title I, § 155, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 729, related to reports on progress of regulation.

Section 7456, act July 14, 1955, ch. 360, title I, § 156, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 729, authorized President to enter into international agreements to foster cooperative research.

Section 7457, act July 14, 1955, ch. 360, title I, § 157, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 729, related to promulgation of regulations.

Section 7458, act July 14, 1955, ch. 360, title I, § 158, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 730, set forth other provisions of law that would be unaffected by this part.

Section 7459, act July 14, 1955, ch. 360, title I, § 159, as added Aug. 7, 1977, Pub. L. 95–95, title I, § 126, 91 Stat. 730, related to authority of States to protect the stratosphere.

SIMILAR PROVISIONS

For provisions relating to stratospheric ozone protection, see section 7671 et seq. of this title.

PART C—PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

SUBPART I—CLEAN AIR

§ 7470. Congressional declaration of purpose

The purposes of this part are as follows:

(1) to protect public health and welfare from any actual or potential adverse effect which in the Administrator's judgment may reasonably be anticipate[1] to occur from air pollution or from exposures to pollutants in other media, which pollutants originate as emissions to the ambient air)[2], notwithstanding attainment and maintenance of all national ambient air quality standards;

(2) to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value;

(3) to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources;

(4) to assure that emissions from any source in any State will not interfere with any portion of the applicable implementation plan to prevent significant deterioration of air quality for any other State; and

(5) to assure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

(July 14, 1955, ch. 360, title I, § 160, as added Pub. L. 95–95, title I, § 127(a), Aug. 7, 1977, 91 Stat. 731.)

EFFECTIVE DATE

Subpart effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

GUIDANCE DOCUMENT

Pub. L. 95–95, title I, § 127(c), Aug. 7, 1977, 91 Stat. 741, required Administrator, not later than 1 year after Aug. 7, 1977, to publish a guidance document to assist States in carrying out their functions under part C of title I of the Clean Air Act (this part) with respect to pollutants for which national ambient air quality standards are promulgated.

STUDY AND REPORT ON PROGRESS MADE IN PROGRAM RELATING TO SIGNIFICANT DETERIORATION OF AIR QUALITY

Pub. L. 95–95, title I, § 127(d), Aug. 7, 1977, 91 Stat. 742, directed Administrator, not later than 2 years after Aug. 7, 1977, to complete a study and report to Congress on progress made in carrying out part C of title I of the Clean Air Act (this part) and the problems associated in carrying out such section.

§ 7471. Plan requirements

In accordance with the policy of section 7401(b)(1) of this title, each applicable implementation plan shall contain emission limitations and such other measures as may be necessary, as determined under regulations promulgated under this part, to prevent significant deterioration of air quality in each region (or portion thereof) designated pursuant to section 7407 of this title as attainment or unclassifiable.

(July 14, 1955, ch. 360, title I, § 161, as added Pub. L. 95–95, title I, § 127(a), Aug. 7, 1977, 91 Stat. 731; amended Pub. L. 101–549, title I, § 110(1), Nov. 15, 1990, 104 Stat. 2470.)

AMENDMENTS

1990—Pub. L. 101–549 substituted ''designated pursuant to section 7407 of this title as attainment or unclassifiable'' for ''identified pursuant to section 7407(d)(1)(D) or (E) of this title''.

§ 7472. Initial classifications

(a) Areas designated as class I

Upon the enactment of this part, all—

(1) international parks,

(2) national wilderness areas which exceed 5,000 acres in size,

[1] So in original. Probably should be ''anticipated''.

[2] So in original. Section was enacted without an opening parenthesis.

(3) national memorial parks which exceed 5,000 acres in size, and

(4) national parks which exceed six thousand acres in size,

and which are in existence on August 7, 1977, shall be class I areas and may not be redesignated. All areas which were redesignated as class I under regulations promulgated before August 7, 1977, shall be class I areas which may be redesignated as provided in this part. The extent of the areas designated as Class I under this section shall conform to any changes in the boundaries of such areas which have occurred subsequent to August 7, 1977, or which may occur subsequent to November 15, 1990.

(b) Areas designated as class II

All areas in such State designated pursuant to section 7407(d) of this title as attainment or unclassifiable which are not established as class I under subsection (a) shall be class II areas unless redesignated under section 7474 of this title.

(July 14, 1955, ch. 360, title I, §162, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 731; amended Pub. L. 95–190, §14(a)(40), Nov. 16, 1977, 91 Stat. 1401; Pub. L. 101–549, title I, §§108(m), 110(2), Nov. 15, 1990, 104 Stat. 2469, 2470.)

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, §108(m), inserted at end ''The extent of the areas designated as Class I under this section shall conform to any changes in the boundaries of such areas which have occurred subsequent to August 7, 1977, or which may occur subsequent to November 15, 1990.''

Subsec. (b). Pub. L. 101–549, §110(2), substituted ''designated pursuant to section 7407(d) of this title as attainment or unclassifiable'' for ''identified pursuant to section 7407(d)(1)(D) or (E) of this title''.

1977—Subsec. (a)(4). Pub. L. 95–190 inserted a comma after ''size''.

§ 7473. Increments and ceilings

(a) Sulfur oxide and particulate matter; requirement that maximum allowable increases and maximum allowable concentrations not be exceeded

In the case of sulfur oxide and particulate matter, each applicable implementation plan shall contain measures assuring that maximum allowable increases over baseline concentrations of, and maximum allowable concentrations of, such pollutant shall not be exceeded. In the case of any maximum allowable increase (except an allowable increase specified under section 7475(d)(2)(C)(iv) of this title) for a pollutant based on concentrations permitted under national ambient air quality standards for any period other than an annual period, such regulations shall permit such maximum allowable increase to be exceeded during one such period per year.

(b) Maximum allowable increases in concentrations over baseline concentrations

(1) For any class I area, the maximum allowable increase in concentrations of sulfur dioxide and particulate matter over the baseline concentration of such pollutants shall not exceed the following amounts:

Pollutant	Maximum allowable increase (in micrograms per cubic meter)
Particulate matter:	
Annual geometric mean	5
Twenty-four-hour maximum	10
Sulfur dioxide:	
Annual arithmetic mean	2
Twenty-four-hour maximum	5
Three-hour maximum	25

(2) For any class II area, the maximum allowable increase in concentrations of sulfur dioxide and particulate matter over the baseline concentration of such pollutants shall not exceed the following amounts:

Pollutant	Maximum allowable increase (in micrograms per cubic meter)
Particulate matter:	
Annual geometric mean	19
Twenty-four-hour maximum	37
Sulfur dioxide:.	
Annual arithmetic mean	20
Twenty-four-hour maximum	91
Three-hour maximum	512

(3) For any class III area, the maximum allowable increase in concentrations of sulfur dioxide and particulate matter over the baseline concentration of such pollutants shall not exceed the following amounts:

Pollutant	Maximum allowable increase (in micrograms per cubic meter)
Particulate matter:	
Annual geometric mean	37
Twenty-four-hour maximum	75
Sulfur dioxide:.	
Annual arithmetic mean	40
Twenty-four-hour maximum	182
Three-hour maximum	700

(4) The maximum allowable concentration of any air pollutant in any area to which this part applies shall not exceed a concentration for such pollutant for each period of exposure equal to—

(A) the concentration permitted under the national secondary ambient air quality standard, or

(B) the concentration permitted under the national primary ambient air quality standard,

whichever concentration is lowest for such pollutant for such period of exposure.

(c) Orders or rules for determining compliance with maximum allowable increases in ambient concentrations of air pollutants

(1) In the case of any State which has a plan approved by the Administrator for purposes of carrying out this part, the Governor of such State may, after notice and opportunity for public hearing, issue orders or promulgate rules providing that for purposes of determining compliance with the maximum allowable increases in ambient concentrations of an air pollutant, the following concentrations of such pollutant shall not be taken into account:

(A) concentrations of such pollutant attributable to the increase in emissions from sta-

tionary sources which have converted from the use of petroleum products, or natural gas, or both, by reason of an order which is in effect under the provisions of sections 792(a) and (b) of title 15 (or any subsequent legislation which supersedes such provisions) over the emissions from such sources before the effective date of such order.[1]

(B) the concentrations of such pollutant attributable to the increase in emissions from stationary sources which have converted from using natural gas by reason of a natural gas curtailment pursuant to a natural gas curtailment plan in effect pursuant to the Federal Power Act [16 U.S.C. 791a et seq.] over the emissions from such sources before the effective date of such plan,

(C) concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities, and

(D) the increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration determined in accordance with section 7479(4) of this title.

(2) No action taken with respect to a source under paragraph (1)(A) or (1)(B) shall apply more than five years after the effective date of the order referred to in paragraph (1)(A) or the plan referred to in paragraph (1)(B), whichever is applicable. If both such order and plan are applicable, no such action shall apply more than five years after the later of such effective dates.

(3) No action under this subsection shall take effect unless the Governor submits the order or rule providing for such exclusion to the Administrator and the Administrator determines that such order or rule is in compliance with the provisions of this subsection.

(July 14, 1955, ch. 360, title I, §163, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 732; amended Pub. L. 95–190, §14(a)(41), Nov. 16, 1977, 91 Stat. 1401.)

REFERENCES IN TEXT

The Federal Power Act, referred to in subsec. (c)(1)(B), is act June 10, 1920, ch. 285, 41 Stat. 1063, as amended, which is classified generally to chapter 12 (§791a et seq.) of Title 16, Conservation. For complete classification of this Act to the Code, see section 791a of Title 16 and Tables.

AMENDMENTS

1977—Subsec. (a). Pub. L. 95–190 inserted ''section'' before ''7475''.

§ 7474. Area redesignation

(a) Authority of States to redesignate areas

Except as otherwise provided under subsection (c), a State may redesignate such areas as it deems appropriate as class I areas. The following areas may be redesignated only as class I or II:

(1) an area which exceeds ten thousand acres in size and is a national monument, a national primitive area, a national preserve, a national recreation area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore, and

(2) a national park or national wilderness area established after August 7, 1977, which exceeds ten thousand acres in size.

The extent of the areas referred to in paragraph[1] (1) and (2) shall conform to any changes in the boundaries of such areas which have occurred subsequent to August 7, 1977, or which may occur subsequent to November 15, 1990. Any area (other than an area referred to in paragraph (1) or (2) or an area established as class I under the first sentence of section 7472(a) of this title) may be redesignated by the State as class III if—

(A) such redesignation has been specifically approved by the Governor of the State, after consultation with the appropriate Committees of the legislature if it is in session or with the leadership of the legislature if it is not in session (unless State law provides that such redesignation must be specifically approved by State legislation) and if general purpose units of local government representing a majority of the residents of the area so redesignated enact legislation (including for such units of local government resolutions where appropriate) concurring in the State's redesignation;

(B) such redesignation will not cause, or contribute to, concentrations of any air pollutant which exceed any maximum allowable increase or maximum allowable concentration permitted under the classification of any other area; and

(C) such redesignation otherwise meets the requirements of this part.

Subparagraph (A) of this paragraph shall not apply to area redesignations by Indian tribes.

(b) Notice and hearing; notice to Federal land manager; written comments and recommendations; regulations; disapproval of redesignation

(1)(A) Prior to redesignation of any area under this part, notice shall be afforded and public hearings shall be conducted in areas proposed to be redesignated and in areas which may be affected by the proposed redesignation. Prior to any such public hearing a satisfactory description and analysis of the health, environmental, economic, social, and energy effects of the proposed redesignation shall be prepared and made available for public inspection and prior to any such redesignation, the description and analysis of such effects shall be reviewed and examined by the redesignating authorities.

(B) Prior to the issuance of notice under subparagraph (A) respecting the redesignation of any area under this subsection, if such area includes any Federal lands, the State shall provide written notice to the appropriate Federal land manager and afford adequate opportunity (but not in excess of 60 days) to confer with the State respecting the intended notice of redesignation and to submit written comments and recommendations with respect to such intended notice of redesignation. In redesignating any area

[1] So in original. The period probably should be a comma.

[1] So in original. Probably should be ''paragraphs''.

under this section with respect to which any Federal land manager has submitted written comments and recommendations, the State shall publish a list of any inconsistency between such redesignation and such recommendations and an explanation of such inconsistency (together with the reasons for making such redesignation against the recommendation of the Federal land manager).

(C) The Administrator shall promulgate regulations not later than six months after August 7, 1977, to assure, insofar as practicable, that prior to any public hearing on redesignation of any area, there shall be available for public inspection any specific plans for any new or modified major emitting facility which may be permitted to be constructed and operated only if the area in question is designated or redesignated as class III.

(2) The Administrator may disapprove the redesignation of any area only if he finds, after notice and opportunity for public hearing, that such redesignation does not meet the procedural requirements of this section or is inconsistent with the requirements of section 7472(a) of this title or of subsection (a) of this section. If any such disapproval occurs, the classification of the area shall be that which was in effect prior to the redesignation which was disapproved.

(c) Indian reservations

Lands within the exterior boundaries of reservations of federally recognized Indian tribes may be redesignated only by the appropriate Indian governing body. Such Indian governing body shall be subject in all respect to the provisions of subsection (e).

(d) Review of national monuments, primitive areas, and national preserves

The Federal Land Manager shall review all national monuments, primitive areas, and national preserves, and shall recommend any appropriate areas for redesignation as class I where air quality related values are important attributes of the area. The Federal Land Manager shall report such recommendations, within[2] supporting analysis, to the Congress and the affected States within one year after August 7, 1977. The Federal Land Manager shall consult with the appropriate States before making such recommendations.

(e) Resolution of disputes between State and Indian tribes

If any State affected by the redesignation of an area by an Indian tribe or any Indian tribe affected by the redesignation of an area by a State disagrees with such redesignation of any area, or if a permit is proposed to be issued for any new major emitting facility proposed for construction in any State which the Governor of an affected State or governing body of an affected Indian tribe determines will cause or contribute to a cumulative change in air quality in excess of that allowed in this part within the affected State or tribal reservation, the Governor or Indian ruling body may request the Administrator to enter into negotiations with the parties involved to resolve such dispute. If requested by any State or Indian tribe involved, the Administrator shall make a recommendation to resolve the dispute and protect the air quality related values of the lands involved. If the parties involved do not reach agreement, the Administrator shall resolve the dispute and his determination, or the results of agreements reached through other means, shall become part of the applicable plan and shall be enforceable as part of such plan. In resolving such disputes relating to area redesignation, the Administrator shall consider the extent to which the lands involved are of sufficient size to allow effective air quality management or have air quality related values of such an area.

(July 14, 1955, ch. 360, title I, § 164, as added Pub. L. 95–95, title I, § 127(a), Aug. 7, 1977, 91 Stat. 733; amended Pub. L. 95–190, § 14(a)(42), (43), Nov. 16, 1977, 91 Stat. 1402; Pub. L. 101–549, title I, § 108(n), Nov. 15, 1990, 104 Stat. 2469.)

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, which directed the insertion of ''The extent of the areas referred to in paragraph (1) and (2) shall conform to any changes in the boundaries of such areas which have occurred subsequent to August 7, 1977, or which may occur subsequent to November 15, 1990.'' before ''Any area (other than an area referred to in paragraph (1) or (2))'', was executed by making the insertion before ''Any area (other than an area referred to in paragraph (1) or (2)'', to reflect the probable intent of Congress.

1977—Subsec. (b)(2). Pub. L. 95–190, § 14(a)(42), inserted ''or is inconsistent with the requirements of section 7472(a) of this title or of subsection (a) of this section'' after ''this section''.

Subsec. (e). Pub. L. 95–190, § 14(a)(43), inserted ''an'' after ''If any State affected by the redesignation of''.

§ 7475. Preconstruction requirements

(a) Major emitting facilities on which construction is commenced

No major emitting facility on which construction is commenced after August 7, 1977, may be constructed in any area to which this part applies unless—

(1) a permit has been issued for such proposed facility in accordance with this part setting forth emission limitations for such facility which conform to the requirements of this part;

(2) the proposed permit has been subject to a review in accordance with this section, the required analysis has been conducted in accordance with regulations promulgated by the Administrator, and a public hearing has been held with opportunity for interested persons including representatives of the Administrator to appear and submit written or oral presentations on the air quality impact of such source, alternatives thereto, control technology requirements, and other appropriate considerations;

(3) the owner or operator of such facility demonstrates, as required pursuant to section 7410(j) of this title, that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any (A) maximum allowable increase or maximum allowable concentration for any pollutant in any area to which this part applies more than one time per year, (B) na-

[2] So in original. Probably should be ''with''.

tional ambient air quality standard in any air quality control region, or (C) any other applicable emission standard or standard of performance under this chapter;

(4) the proposed facility is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility;

(5) the provisions of subsection (d) with respect to protection of class I areas have been complied with for such facility;

(6) there has been an analysis of any air quality impacts projected for the area as a result of growth associated with such facility;

(7) the person who owns or operates, or proposes to own or operate, a major emitting facility for which a permit is required under this part agrees to conduct such monitoring as may be necessary to determine the effect which emissions from any such facility may have, or is having, on air quality in any area which may be affected by emissions from such source; and

(8) in the case of a source which proposes to construct in a class III area, emissions from which would cause or contribute to exceeding the maximum allowable increments applicable in a class II area and where no standard under section 7411 of this title has been promulgated subsequent to August 7, 1977, for such source category, the Administrator has approved the determination of best available technology as set forth in the permit.

(b) Exception

The demonstration pertaining to maximum allowable increases required under subsection (a)(3) shall not apply to maximum allowable increases for class II areas in the case of an expansion or modification of a major emitting facility which is in existence on August 7, 1977, whose allowable emissions of air pollutants, after compliance with subsection (a)(4), will be less than fifty tons per year and for which the owner or operator of such facility demonstrates that emissions of particulate matter and sulfur oxides will not cause or contribute to ambient air quality levels in excess of the national secondary ambient air quality standard for either of such pollutants.

(c) Permit applications

Any completed permit application under section 7410 of this title for a major emitting facility in any area to which this part applies shall be granted or denied not later than one year after the date of filing of such completed application.

(d) Action taken on permit applications; notice; adverse impact on air quality related values; variance; emission limitations

(1) Each State shall transmit to the Administrator a copy of each permit application relating to a major emitting facility received by such State and provide notice to the Administrator of every action related to the consideration of such permit.

(2)(A) The Administrator shall provide notice of the permit application to the Federal Land Manager and the Federal official charged with direct responsibility for management of any lands within a class I area which may be affected by emissions from the proposed facility.

(B) The Federal Land Manager and the Federal official charged with direct responsibility for management of such lands shall have an affirmative responsibility to protect the air quality related values (including visibility) of any such lands within a class I area and to consider, in consultation with the Administrator, whether a proposed major emitting facility will have an adverse impact on such values.

(C)(i) In any case where the Federal official charged with direct responsibility for management of any lands within a class I area or the Federal Land Manager of such lands, or the Administrator, or the Governor of an adjacent State containing such a class I area files a notice alleging that emissions from a proposed major emitting facility may cause or contribute to a change in the air quality in such area and identifying the potential adverse impact of such change, a permit shall not be issued unless the owner or operator of such facility demonstrates that emissions of particulate matter and sulfur dioxide will not cause or contribute to concentrations which exceed the maximum allowable increases for a class I area.

(ii) In any case where the Federal Land Manager demonstrates to the satisfaction of the State that the emissions from such facility will have an adverse impact on the air quality-related values (including visibility) of such lands, notwithstanding the fact that the change in air quality resulting from emissions from such facility will not cause or contribute to concentrations which exceed the maximum allowable increases for a class I area, a permit shall not be issued.

(iii) In any case where the owner or operator of such facility demonstrates to the satisfaction of the Federal Land Manager, and the Federal Land Manager so certifies, that the emissions from such facility will have no adverse impact on the air quality-related values of such lands (including visibility), notwithstanding the fact that the change in air quality resulting from emissions from such facility will cause or contribute to concentrations which exceed the maximum allowable increases for class I areas, the State may issue a permit.

(iv) In the case of a permit issued pursuant to clause (iii), such facility shall comply with such emission limitations under such permit as may be necessary to assure that emissions of sulfur oxides and particulates from such facility will not cause or contribute to concentrations of such pollutant which exceed the following maximum allowable increases over the baseline concentration for such pollutants:

	Maximum allowable increase (in micrograms per cubic meter)
Particulate matter:	
Annual geometric mean	19
Twenty-four-hour maximum	37
Sulfur dioxide:	
Annual arithmetic mean	20
Twenty-four-hour maximum	91
Three-hour maximum	325

(D)(i) In any case where the owner or operator of a proposed major emitting facility who has been denied a certification under subparagraph (C)(iii) demonstrates to the satisfaction of the Governor, after notice and public hearing, and the Governor finds, that the facility cannot be constructed by reason of any maximum allowable increase for sulfur dioxide for periods of twenty-four hours or less applicable to any class I area and, in the case of Federal mandatory class I areas, that a variance under this clause will not adversely affect the air quality related values of the area (including visibility), the Governor, after consideration of the Federal Land Manager's recommendation (if any) and subject to his concurrence, may grant a variance from such maximum allowable increase. If such variance is granted, a permit may be issued to such source pursuant to the requirements of this subparagraph.

(ii) In any case in which the Governor recommends a variance under this subparagraph in which the Federal Land Manager does not concur, the recommendations of the Governor and the Federal Land Manager shall be transmitted to the President. The President may approve the Governor's recommendation if he finds that such variance is in the national interest. No Presidential finding shall be reviewable in any court. The variance shall take effect if the President approves the Governor's recommendations. The President shall approve or disapprove such recommendation within ninety days after his receipt of the recommendations of the Governor and the Federal Land Manager.

(iii) In the case of a permit issued pursuant to this subparagraph, such facility shall comply with such emission limitations under such permit as may be necessary to assure that emissions of sulfur oxides from such facility will not (during any day on which the otherwise applicable maximum allowable increases are exceeded) cause or contribute to concentrations which exceed the following maximum allowable increases for such areas over the baseline concentration for such pollutant and to assure that such emissions will not cause or contribute to concentrations which exceed the otherwise applicable maximum allowable increases for periods of exposure of 24 hours or less on more than 18 days during any annual period:

MAXIMUM ALLOWABLE INCREASE
(In micrograms per cubic meter)

Period of exposure	Low terrain areas	High terrain areas
24-hr maximum	36	62
3-hr maximum	130	221

(iv) For purposes of clause (iii), the term ''high terrain area'' means with respect to any facility, any area having an elevation of 900 feet or more above the base of the stack of such facility, and the term ''low terrain area'' means any area other than a high terrain area.

(e) Analysis; continuous air quality monitoring data; regulations; model adjustments

(1) The review provided for in subsection (a) shall be preceded by an analysis in accordance with regulations of the Administrator, promulgated under this subsection, which may be conducted by the State (or any general purpose unit of local government) or by the major emitting facility applying for such permit, of the ambient air quality at the proposed site and in areas which may be affected by emissions from such facility for each pollutant subject to regulation under this chapter which will be emitted from such facility.

(2) Effective one year after August 7, 1977, the analysis required by this subsection shall include continuous air quality monitoring data gathered for purposes of determining whether emissions from such facility will exceed the maximum allowable increases or the maximum allowable concentration permitted under this part. Such data shall be gathered over a period of one calendar year preceding the date of application for a permit under this part unless the State, in accordance with regulations promulgated by the Administrator, determines that a complete and adequate analysis for such purposes may be accomplished in a shorter period. The results of such analysis shall be available at the time of the public hearing on the application for such permit.

(3) The Administrator shall within six months after August 7, 1977, promulgate regulations respecting the analysis required under this subsection which regulations—

(A) shall not require the use of any automatic or uniform buffer zone or zones,

(B) shall require an analysis of the ambient air quality, climate and meteorology, terrain, soils and vegetation, and visibility at the site of the proposed major emitting facility and in the area potentially affected by the emissions from such facility for each pollutant regulated under this chapter which will be emitted from, or which results from the construction or operation of, such facility, the size and nature of the proposed facility, the degree of continuous emission reduction which could be achieved by such facility, and such other factors as may be relevant in determining the effect of emissions from a proposed facility on any air quality control region,

(C) shall require the results of such analysis shall be available at the time of the public hearing on the application for such permit, and

(D) shall specify with reasonable particularity each air quality model or models to be used under specified sets of conditions for purposes of this part.

Any model or models designated under such regulations may be adjusted upon a determination, after notice and opportunity for public hearing, by the Administrator that such adjustment is necessary to take into account unique terrain or meteorological characteristics of an area potentially affected by emissions from a source applying for a permit required under this part.

(July 14, 1955, ch. 360, title I, §165, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 735; amended Pub. L. 95–190, §14(a)(44)–(51), Nov. 16, 1977, 91 Stat. 1402.)

AMENDMENTS

1977—Subsec. (a)(1). Pub. L. 95–190, §14(a)(44), substituted ''part;'' for ''part:''.

Subsec. (a)(3). Pub. L. 95–190, §14(a)(45), inserted provision making applicable requirement of section 7410(j) of this title.

Subsec. (b). Pub. L. 95–190, §14(a)(46), inserted ''cause or'' before ''contribute'' and struck out ''actual'' before ''allowable emissions''.

Subsec. (d)(2)(C). Pub. L. 95–190, §14(a)(47)–(49), in cl. (ii) substituted ''contribute'' for ''contrbute'', in cl. (iii) substituted ''quality-related'' for ''quality related'' and ''concentrations which'' for ''concentrations, which'', and in cl. (iv) substituted ''such facility'' for ''such sources'' and ''will not cause or contribute to concentrations of such pollutant which exceed'' for ''together with all other sources, will not exceed''.

Subsec. (d)(2)(D). Pub. L. 95–190, §14(a)(50), (51), in cl. (iii) substituted provisions relating to determinations of amounts of emissions of sulfur oxides from facilities, for provisions relating to determinations of amounts of emissions of sulfur oxides from sources operating under permits issued pursuant to this subpar., together with all other sources, and added cl. (iv).

§ 7476. Other pollutants

(a) Hydrocarbons, carbon monoxide, petrochemical oxidants, and nitrogen oxides

In the case of the pollutants hydrocarbons, carbon monoxide, photochemical oxidants, and nitrogen oxides, the Administrator shall conduct a study and not later than two years after August 7, 1977, promulgate regulations to prevent the significant deterioration of air quality which would result from the emissions of such pollutants. In the case of pollutants for which national ambient air quality standards are promulgated after August 7, 1977, he shall promulgate such regulations not more than 2 years after the date of promulgation of such standards.

(b) Effective date of regulations

Regulations referred to in subsection (a) shall become effective one year after the date of promulgation. Within 21 months after such date of promulgation such plan revision shall be submitted to the Administrator who shall approve or disapprove the plan within 25 months after such date or[1] promulgation in the same manner as required under section 7410 of this title.

(c) Contents of regulations

Such regulations shall provide specific numerical measures against which permit applications may be evaluated, a framework for stimulating improved control technology, protection of air quality values, and fulfill the goals and purposes set forth in section 7401 and section 7470 of this title.

(d) Specific measures to fulfill goals and purposes

The regulations of the Administrator under subsection (a) shall provide specific measures at least as effective as the increments established in section 7473 of this title to fulfill such goals and purposes, and may contain air quality increments, emission density requirements, or other measures.

(e) Area classification plan not required

With respect to any air pollutant for which a national ambient air quality standard is established other than sulfur oxides or particulate matter, an area classification plan shall not be required under this section if the implementation plan adopted by the State and submitted for the Administrator's approval or promulgated by the Administrator under section 7410(c) of this title contains other provisions which when considered as a whole, the Administrator finds will carry out the purposes in section 7470 of this title at least as effectively as an area classification plan for such pollutant. Such other provisions referred to in the preceding sentence need not require the establishment of maximum allowable increases with respect to such pollutant for any area to which this section applies.

(f) PM–10 increments

The Administrator is authorized to substitute, for the maximum allowable increases in particulate matter specified in section 7473(b) of this title and section 7475(d)(2)(C)(iv) of this title, maximum allowable increases in particulate matter with an aerodynamic diameter smaller than or equal to 10 micrometers. Such substituted maximum allowable increases shall be of equal stringency in effect as those specified in the provisions for which they are substituted. Until the Administrator promulgates regulations under the authority of this subsection, the current maximum allowable increases in concentrations of particulate matter shall remain in effect.

(July 14, 1955, ch. 360, title I, §166, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 739; amended Pub. L. 101–549, title I, §105(b), Nov. 15, 1990, 104 Stat. 2462.)

AMENDMENTS

1990—Subsec. (f). Pub. L. 101–549 added subsec. (f).

§ 7477. Enforcement

The Administrator shall, and a State may, take such measures, including issuance of an order, or seeking injunctive relief, as necessary to prevent the construction or modification of a major emitting facility which does not conform to the requirements of this part, or which is proposed to be constructed in any area designated pursuant to section 7407(d) of this title as attainment or unclassifiable and which is not subject to an implementation plan which meets the requirements of this part.

(July 14, 1955, ch. 360, title I, §167, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 740; amended Pub. L. 101–549, title I, §110(3), title VII, §708, Nov. 15, 1990, 104 Stat. 2470, 2684.)

AMENDMENTS

1990—Pub. L. 101–549, §708, substituted ''construction or modification of a major emitting facility'' for ''construction of a major emitting facility''.

Pub. L. 101–549, §110(3), substituted ''designated pursuant to section 7407(d) as attainment or unclassifiable'' for ''included in the list promulgated pursuant to paragraph (1)(D) or (E) of subsection (d) of section 7407 of this title''.

§ 7478. Period before plan approval

(a) Existing regulations to remain in effect

Until such time as an applicable implementation plan is in effect for any area, which plan

[1] So in original. Probably should be ''of''.

meets the requirements of this part to prevent significant deterioration of air quality with respect to any air pollutant, applicable regulations under this chapter prior to August 7, 1977, shall remain in effect to prevent significant deterioration of air quality in any such area for any such pollutant except as otherwise provided in subsection (b).

(b) Regulations deemed amended; construction commenced after June 1, 1975

If any regulation in effect prior to August 7, 1977, to prevent significant deterioration of air quality would be inconsistent with the requirements of section 7472(a), section 7473(b) or section 7474(a) of this title, then such regulations shall be deemed amended so as to conform with such requirements. In the case of a facility on which construction was commenced (in accordance with the definition of ''commenced'' in section 7479(2) of this title) after June 1, 1975, and prior to August 7, 1977, the review and permitting of such facility shall be in accordance with the regulations for the prevention of significant deterioration in effect prior to August 7, 1977.

(July 14, 1955, ch. 360, title I, §168, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 740; amended Pub. L. 95–190, §14(a)(52), Nov. 16, 1977, 91 Stat. 1402.)

AMENDMENTS

1977—Subsec. (b). Pub. L. 95–190 substituted ''(in accordance with the definition of 'commenced' in section 7479(2) of this title)'' for ''in accordance with this definition''.

§ 7479. Definitions

For purposes of this part—

(1) The term ''major emitting facility'' means any of the following stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant from the following types of stationary sources: fossil-fuel fired steam electric plants of more than two hundred and fifty million British thermal units per hour heat input, coal cleaning plants (thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than fifty tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production facilities, chemical process plants, fossil-fuel boilers of more than two hundred and fifty million British thermal units per hour heat input, petroleum storage and transfer facilities with a capacity exceeding three hundred thousand barrels, taconite ore processing facilities, glass fiber processing plants, charcoal production facilities. Such term also includes any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant. This term shall not include new or modified facilities which are nonprofit health or education institutions which have been exempted by the State.

(2)(A) The term ''commenced'' as applied to construction of a major emitting facility means that the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (i) begun, or caused to begin, a continuous program of physical onsite construction of the facility or (ii) entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed within a reasonable time.

(B) The term ''necessary preconstruction approvals or permits'' means those permits or approvals, required by the permitting authority as a precondition to undertaking any activity under clauses (i) or (ii) of subparagraph (A) of this paragraph.

(C) The term ''construction'' when used in connection with any source or facility, includes the modification (as defined in section 7411(a) of this title) of any source or facility.

(3) The term ''best available control technology'' means an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant. In no event shall application of ''best available control technology'' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 7411 or 7412 of this title. Emissions from any source utilizing clean fuels, or any other means, to comply with this paragraph shall not be allowed to increase above levels that would have been required under this paragraph as it existed prior to November 15, 1990.

(4) The term ''baseline concentration'' means, with respect to a pollutant, the ambient concentration levels which exist at the time of the first application for a permit in an area subject to this part, based on air quality data available in the Environmental Protection Agency or a State air pollution control agency and on such monitoring data as the permit applicant is required to submit. Such ambient concentration levels shall take into account all projected emissions in, or which may affect, such area from any major emitting facility on which construction commenced prior to January 6, 1975, but which has not begun operation by the date of the baseline air quality concentration determination. Emissions of sulfur oxides and particulate matter from any major emitting facility on which construction commenced after January

6, 1975, shall not be included in the baseline and shall be counted against the maximum allowable increases in pollutant concentrations established under this part.

(July 14, 1955, ch. 360, title I, § 169, as added Pub. L. 95–95, title I, § 127(a), Aug. 7, 1977, 91 Stat. 740; amended Pub. L. 95–190, § 14(a)(54), Nov. 16, 1977, 91 Stat. 1402; Pub. L. 101–549, title III, § 305(b), title IV, § 403(d), Nov. 15, 1990, 104 Stat. 2583, 2631.)

AMENDMENTS

1990—Par. (1). Pub. L. 101–549, § 305(b), struck out ''two hundred and'' after ''municipal incinerators capable of charging more than''.

Par. (3). Pub. L. 101–549, § 403(d), directed the insertion of '', clean fuels,'' after ''including fuel cleaning,'', which was executed by making the insertion after ''including fuel cleaning'' to reflect the probable intent of Congress, and inserted at end ''Emissions from any source utilizing clean fuels, or any other means, to comply with this paragraph shall not be allowed to increase above levels that would have been required under this paragraph as it existed prior to November 15, 1990.''

1977—Par. (2)(C). Pub. L. 95–190 added subpar. (C).

STUDY OF MAJOR EMITTING FACILITIES WITH POTENTIAL OF EMITTING 250 TONS PER YEAR

Pub. L. 95–95, title I, § 127(b), Aug. 7, 1977, 91 Stat. 741, directed Administrator, within 1 year after Aug. 7, 1977, to report to Congress on consequences of that portion of definition of ''major emitting facility'' under this subpart which applies to facilities with potential to emit 250 tons per year or more.

SUBPART II—VISIBILITY PROTECTION

CODIFICATION

As originally enacted, subpart II of part C of subchapter I of this chapter was added following section 7478 of this title. Pub. L. 95–190, § 14(a)(53), Nov. 16, 1977, 91 Stat. 1402, struck out subpart II and inserted such subpart following section 7479 of this title.

§ 7491. Visibility protection for Federal class I areas

(a) Impairment of visibility; list of areas; study and report

(1) Congress hereby declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.

(2) Not later than six months after August 7, 1977, the Secretary of the Interior in consultation with other Federal land managers shall review all mandatory class I Federal areas and identify those where visibility is an important value of the area. From time to time the Secretary of the Interior may revise such identifications. Not later than one year after August 7, 1977, the Administrator shall, after consultation with the Secretary of the Interior, promulgate a list of mandatory class I Federal areas in which he determines visibility is an important value.

(3) Not later than eighteen months after August 7, 1977, the Administrator shall complete a study and report to Congress on available methods for implementing the national goal set forth in paragraph (1). Such report shall include recommendations for—

(A) methods for identifying, characterizing, determining, quantifying, and measuring visibility impairment in Federal areas referred to in paragraph (1), and

(B) modeling techniques (or other methods) for determining the extent to which manmade air pollution may reasonably be anticipated to cause or contribute to such impairment, and

(C) methods for preventing and remedying such manmade air pollution and resulting visibility impairment.

Such report shall also identify the classes or categories of sources and the types of air pollutants which, alone or in conjunction with other sources or pollutants, may reasonably be anticipated to cause or contribute significantly to impairment of visibility.

(4) Not later than twenty-four months after August 7, 1977, and after notice and public hearing, the Administrator shall promulgate regulations to assure (A) reasonable progress toward meeting the national goal specified in paragraph (1), and (B) compliance with the requirements of this section.

(b) Regulations

Regulations under subsection (a)(4) shall—

(1) provide guidelines to the States, taking into account the recommendations under subsection (a)(3) on appropriate techniques and methods for implementing this section (as provided in subparagraphs (A) through (C) of such subsection (a)(3)), and

(2) require each applicable implementation plan for a State in which any area listed by the Administrator under subsection (a)(2) is located (or for a State the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area) to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal specified in subsection (a), including—

(A) except as otherwise provided pursuant to subsection (c), a requirement that each major stationary source which is in existence on August 7, 1977, but which has not been in operation for more than fifteen years as of such date, and which, as determined by the State (or the Administrator in the case of a plan promulgated under section 7410(c) of this title) emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area, shall procure, install, and operate, as expeditiously as practicable (and maintain thereafter) the best available retrofit technology, as determined by the State (or the Administrator in the case of a plan promulgated under section 7410(c) of this title) for controlling emissions from such source for the purpose of eliminating or reducing any such impairment, and

(B) a long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal specified in subsection (a).

In the case of a fossil-fuel fired generating powerplant having a total generating capacity

in excess of 750 megawatts, the emission limitations required under this paragraph shall be determined pursuant to guidelines, promulgated by the Administrator under paragraph (1).

(c) Exemptions

(1) The Administrator may, by rule, after notice and opportunity for public hearing, exempt any major stationary source from the requirement of subsection (b)(2)(A), upon his determination that such source does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility in any mandatory class I Federal area.

(2) Paragraph (1) of this subsection shall not be applicable to any fossil-fuel fired powerplant with total design capacity of 750 megawatts or more, unless the owner or operator of any such plant demonstrates to the satisfaction of the Administrator that such powerplant is located at such distance from all areas listed by the Administrator under subsection (a)(2) that such powerplant does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to significant impairment of visibility in any such area.

(3) An exemption under this subsection shall be effective only upon concurrence by the appropriate Federal land manager or managers with the Administrator's determination under this subsection.

(d) Consultations with appropriate Federal land managers

Before holding the public hearing on the proposed revision of an applicable implementation plan to meet the requirements of this section, the State (or the Administrator, in the case of a plan promulgated under section 7410(c) of this title) shall consult in person with the appropriate Federal land manager or managers and shall include a summary of the conclusions and recommendations of the Federal land managers in the notice to the public.

(e) Buffer zones

In promulgating regulations under this section, the Administrator shall not require the use of any automatic or uniform buffer zone or zones.

(f) Nondiscretionary duty

For purposes of section 7604(a)(2) of this title, the meeting of the national goal specified in subsection (a)(1) by any specific date or dates shall not be considered a ''nondiscretionary duty'' of the Administrator.

(g) Definitions

For the purpose of this section—

(1) in determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements;

(2) in determining best available retrofit technology the State (or the Administrator in determining emission limitations which reflect such technology) shall take into consideration the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control technology in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology;

(3) the term ''manmade air pollution'' means air pollution which results directly or indirectly from human activities;

(4) the term ''as expeditiously as practicable'' means as expeditiously as practicable but in no event later than five years after the date of approval of a plan revision under this section (or the date of promulgation of such a plan revision in the case of action by the Administrator under section 7410(c) of this title for purposes of this section);

(5) the term ''mandatory class I Federal areas'' means Federal areas which may not be designated as other than class I under this part;

(6) the terms ''visibility impairment'' and ''impairment of visibility'' shall include reduction in visual range and atmospheric discoloration; and

(7) the term ''major stationary source'' means the following types of stationary sources with the potential to emit 250 tons or more of any pollutant: fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production facilities, chemical process plants, fossil-fuel boilers of more than 250 million British thermal units per hour heat input, petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels, taconite ore processing facilities, glass fiber processing plants, charcoal production facilities.

(July 14, 1955, ch. 360, title I, §169A, as added Pub. L. 95–95, title I, §128, Aug. 7, 1977, 91 Stat. 742.)

EFFECTIVE DATE

Subpart effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7492. Visibility

(a) Studies

(1) The Administrator, in conjunction with the National Park Service and other appropriate Federal agencies, shall conduct research to identify and evaluate sources and source regions of

both visibility impairment and regions that provide predominantly clean air in class I areas. A total of $8,000,000 per year for 5 years is authorized to be appropriated for the Environmental Protection Agency and the other Federal agencies to conduct this research. The research shall include—

(A) expansion of current visibility related monitoring in class I areas;

(B) assessment of current sources of visibility impairing pollution and clean air corridors;

(C) adaptation of regional air quality models for the assessment of visibility;

(D) studies of atmospheric chemistry and physics of visibility.

(2) Based on the findings available from the research required in subsection (a)(1) as well as other available scientific and technical data, studies, and other available information pertaining to visibility source-receptor relationships, the Administrator shall conduct an assessment and evaluation that identifies, to the extent possible, sources and source regions of visibility impairment including natural sources as well as source regions of clear air for class I areas. The Administrator shall produce interim findings from this study within 3 years after November 15, 1990.

(b) Impacts of other provisions

Within 24 months after November 15, 1990, the Administrator shall conduct an assessment of the progress and improvements in visibility in class I areas that are likely to result from the implementation of the provisions of the Clean Air Act Amendments of 1990 other than the provisions of this section. Every 5 years thereafter the Administrator shall conduct an assessment of actual progress and improvement in visibility in class I areas. The Administrator shall prepare a written report on each assessment and transmit copies of these reports to the appropriate committees of Congress.

(c) Establishment of visibility transport regions and commissions

(1) Authority to establish visibility transport regions

Whenever, upon the Administrator's motion or by petition from the Governors of at least two affected States, the Administrator has reason to believe that the current or projected interstate transport of air pollutants from one or more States contributes significantly to visibility impairment in class I areas located in the affected States, the Administrator may establish a transport region for such pollutants that includes such States. The Administrator, upon the Administrator's own motion or upon petition from the Governor of any affected State, or upon the recommendations of a transport commission established under subsection (b) of this section[1] may—

(A) add any State or portion of a State to a visibility transport region when the Administrator determines that the interstate transport of air pollutants from such State significantly contributes to visibility impairment in a class I area located within the transport region, or

(B) remove any State or portion of a State from the region whenever the Administrator has reason to believe that the control of emissions in that State or portion of the State pursuant to this section will not significantly contribute to the protection or enhancement of visibility in any class I area in the region.

(2) Visibility transport commissions

Whenever the Administrator establishes a transport region under subsection (c)(1), the Administrator shall establish a transport commission comprised of (as a minimum) each of the following members:

(A) the Governor of each State in the Visibility Transport Region, or the Governor's designee;

(B) The[2] Administrator or the Administrator's designee; and

(C) A[2] representative of each Federal agency charged with the direct management of each class I area or areas within the Visibility Transport Region.

(3) Ex officio members

All representatives of the Federal Government shall be ex officio members.

(4) Federal Advisory Committee Act

The visibility transport commissions shall be exempt from the requirements of the Federal Advisory Committee Act [5 U.S.C. App.].

(d) Duties of visibility transport commissions

A Visibility Transport Commission—

(1) shall assess the scientific and technical data, studies, and other currently available information, including studies conducted pursuant to subsection (a)(1), pertaining to adverse impacts on visibility from potential or projected growth in emissions from sources located in the Visibility Transport Region; and

(2) shall, within 4 years of establishment, issue a report to the Administrator recommending what measures, if any, should be taken under this chapter to remedy such adverse impacts. The report required by this subsection shall address at least the following measures:

(A) the establishment of clean air corridors, in which additional restrictions on increases in emissions may be appropriate to protect visibility in affected class I areas;

(B) the imposition of the requirements of part D of this subchapter affecting the construction of new major stationary sources or major modifications to existing sources in such clean air corridors specifically including the alternative siting analysis provisions of section 7503(a)(5) of this title; and

(C) the promulgation of regulations under section 7491 of this title to address long range strategies for addressing regional haze which impairs visibility in affected class I areas.

(e) Duties of Administrator

(1) The Administrator shall, taking into account the studies pursuant to subsection (a)(1)

[1] So in original. Words ''subsection (b) of this section'' probably should be ''paragraph (2)''.

[2] So in original. Probably should not be capitalized.

and the reports pursuant to subsection (d)(2) and any other relevant information, within eighteen months of receipt of the report referred to in subsection (d)(2) of this section, carry out the Administrator's regulatory responsibilities under section 7491 of this title, including criteria for measuring ''reasonable progress'' toward the national goal.

(2) Any regulations promulgated under section 7491 of this title pursuant to this subsection shall require affected States to revise within 12 months their implementation plans under section 7410 of this title to contain such emission limits, schedules of compliance, and other measures as may be necessary to carry out regulations promulgated pursuant to this subsection.

(f) Grand Canyon visibility transport commission

The Administrator pursuant to subsection (c)(1) shall, within 12 months, establish a visibility transport commission for the region affecting the visibility of the Grand Canyon National Park.

(July 14, 1955, ch. 360, title I, § 169B, as added Pub. L. 101–549, title VIII, § 816, Nov. 15, 1990, 104 Stat. 2695.)

REFERENCES IN TEXT

The Clean Air Act Amendments of 1990, referred to in subsec. (b), probably means Pub. L. 101–549, Nov. 15, 1990, 104 Stat. 2399. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

The Federal Advisory Committee Act, referred to in subsec. (c)(4), is Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

PART D—PLAN REQUIREMENTS FOR NONATTAINMENT AREAS

SUBPART 1—NONATTAINMENT AREAS IN GENERAL

§ 7501. Definitions

For the purpose of this part—

(1) REASONABLE FURTHER PROGRESS.—The term ''reasonable further progress'' means such annual incremental reductions in emissions of the relevant air pollutant as are required by this part or may reasonably be required by the Administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date.

(2) NONATTAINMENT AREA.—The term ''nonattainment area'' means, for any air pollutant, an area which is designated ''nonattainment'' with respect to that pollutant within the meaning of section 7407(d) of this title.

(3) The term ''lowest achievable emission rate'' means for any source, that rate of emissions which reflects—

(A) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or

(B) the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

In no event shall the application of this term permit a proposed new or modified source to emit any pollutant in excess of the amount allowable under applicable new source standards of performance.

(4) The terms ''modifications'' and ''modified'' mean the same as the term ''modification'' as used in section 7411(a)(4) of this title.

(July 14, 1955, ch. 360, title I, § 171, as added Pub. L. 95–95, title I, § 129(b), Aug. 7, 1977, 91 Stat. 745; amended Pub. L. 101–549, title I, § 102(a)(2), Nov. 15, 1990, 104 Stat. 2412.)

AMENDMENTS

1990—Pub. L. 101–549, § 102(a)(2)(A), struck out ''and section 7410(a)(2)(I) of this title'' after ''purpose of this part''.

Pars. (1), (2). Pub. L. 101–549, § 102(a)(2)(B), (C), amended pars. (1) and (2) generally. Prior to amendment, pars. (1) and (2) read as follows:

''(1) The term 'reasonable further progress' means annual incremental reductions in emissions of the applicable air pollutant (including substantial reductions in the early years following approval or promulgation of plan provisions under this part and section 7410(a)(2)(I) of this title and regular reductions thereafter) which are sufficient in the judgment of the Administrator, to provide for attainment of the applicable national ambient air quality standard by the date required in section 7502(a) of this title.

''(2) The term 'nonattainment area' means, for any air pollutant an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the Administrator to be reliable) to exceed any national ambient air quality standard for such pollutant. Such term includes any area identified under subparagraphs (A) through (C) of section 7407(d)(1) of this title.''

EFFECTIVE DATE

Part effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7502. Nonattainment plan provisions in general

(a) Classifications and attainment dates

(1) Classifications

(A) On or after the date the Administrator promulgates the designation of an area as a nonattainment area pursuant to section 7407(d) of this title with respect to any national ambient air quality standard (or any revised standard, including a revision of any standard in effect on November 15, 1990), the Administrator may classify the area for the purpose of applying an attainment date pursuant to paragraph (2), and for other purposes. In determining the appropriate classification, if any, for a nonattainment area, the Administrator may consider such factors as the severity of nonattainment in such area and the availability and feasibility of the pollution control measures that the Administrator believes may be necessary to provide for attainment of such standard in such area.

(B) The Administrator shall publish a notice in the Federal Register announcing each classification under subparagraph (A), except the Administrator shall provide an opportunity for at least 30 days for written comment. Such classification shall not be subject to the provisions of sections 553 through 557 of title 5 (con-

cerning notice and comment) and shall not be subject to judicial review until the Administrator takes final action under subsection (k) or (*l*) of section 7410 of this title (concerning action on plan submissions) or section 7509 of this title (concerning sanctions) with respect to any plan submissions required by virtue of such classification.

(C) This paragraph shall not apply with respect to nonattainment areas for which classifications are specifically provided under other provisions of this part.

(2) Attainment dates for nonattainment areas

(A) The attainment date for an area designated nonattainment with respect to a national primary ambient air quality standard shall be the date by which attainment can be achieved as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment under section 7407(d) of this title, except that the Administrator may extend the attainment date to the extent the Administrator determines appropriate, for a period no greater than 10 years from the date of designation as nonattainment, considering the severity of nonattainment and the availability and feasibility of pollution control measures.

(B) The attainment date for an area designated nonattainment with respect to a secondary national ambient air quality standard shall be the date by which attainment can be achieved as expeditiously as practicable after the date such area was designated nonattainment under section 7407(d) of this title.

(C) Upon application by any State, the Administrator may extend for 1 additional year (hereinafter referred to as the ''Extension Year'') the attainment date determined by the Administrator under subparagraph (A) or (B) if—

(i) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

(ii) in accordance with guidance published by the Administrator, no more than a minimal number of exceedances of the relevant national ambient air quality standard has occurred in the area in the year preceding the Extension Year.

No more than 2 one-year extensions may be issued under this subparagraph for a single nonattainment area.

(D) This paragraph shall not apply with respect to nonattainment areas for which attainment dates are specifically provided under other provisions of this part.

(b) Schedule for plan submissions

At the time the Administrator promulgates the designation of an area as nonattainment with respect to a national ambient air quality standard under section 7407(d) of this title, the Administrator shall establish a schedule according to which the State containing such area shall submit a plan or plan revision (including the plan items) meeting the applicable requirements of subsection (c) and section 7410(a)(2) of this title. Such schedule shall at a minimum, include a date or dates, extending no later than 3 years from the date of the nonattainment designation, for the submission of a plan or plan revision (including the plan items) meeting the applicable requirements of subsection (c) and section 7410(a)(2) of this title.

(c) Nonattainment plan provisions

The plan provisions (including plan items) required to be submitted under this part shall comply with each of the following:

(1) In general

Such plan provisions shall provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards.

(2) RFP

Such plan provisions shall require reasonable further progress.

(3) Inventory

Such plan provisions shall include a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area, including such periodic revisions as the Administrator may determine necessary to assure that the requirements of this part are met.

(4) Identification and quantification

Such plan provisions shall expressly identify and quantify the emissions, if any, of any such pollutant or pollutants which will be allowed, in accordance with section 7503(a)(1)(B) of this title, from the construction and operation of major new or modified stationary sources in each such area. The plan shall demonstrate to the satisfaction of the Administrator that the emissions quantified for this purpose will be consistent with the achievement of reasonable further progress and will not interfere with attainment of the applicable national ambient air quality standard by the applicable attainment date.

(5) Permits for new and modified major stationary sources

Such plan provisions shall require permits for the construction and operation of new or modified major stationary sources anywhere in the nonattainment area, in accordance with section 7503 of this title.

(6) Other measures

Such plan provisions shall include enforceable emission limitations, and such other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emission rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date specified in this part.

(7) Compliance with section 7410(a)(2)

Such plan provisions shall also meet the applicable provisions of section 7410(a)(2) of this title.

(8) Equivalent techniques

Upon application by any State, the Administrator may allow the use of equivalent modeling, emission inventory, and planning procedures, unless the Administrator determines that the proposed techniques are, in the aggregate, less effective than the methods specified by the Administrator.

(9) Contingency measures

Such plan shall provide for the implementation of specific measures to be undertaken if the area fails to make reasonable further progress, or to attain the national primary ambient air quality standard by the attainment date applicable under this part. Such measures shall be included in the plan revision as contingency measures to take effect in any such case without further action by the State or the Administrator.

(d) Plan revisions required in response to finding of plan inadequacy

Any plan revision for a nonattainment area which is required to be submitted in response to a finding by the Administrator pursuant to section 7410(k)(5) of this title (relating to calls for plan revisions) must correct the plan deficiency (or deficiencies) specified by the Administrator and meet all other applicable plan requirements of section 7410 of this title and this part. The Administrator may reasonably adjust the dates otherwise applicable under such requirements to such revision (except for attainment dates that have not yet elapsed), to the extent necessary to achieve a consistent application of such requirements. In order to facilitate submittal by the States of adequate and approvable plans consistent with the applicable requirements of this chapter, the Administrator shall, as appropriate and from time to time, issue written guidelines, interpretations, and information to the States which shall be available to the public, taking into consideration any such guidelines, interpretations, or information provided before November 15, 1990.

(e) Future modification of standard

If the Administrator relaxes a national primary ambient air quality standard after November 15, 1990, the Administrator shall, within 12 months after the relaxation, promulgate requirements applicable to all areas which have not attained that standard as of the date of such relaxation. Such requirements shall provide for controls which are not less stringent than the controls applicable to areas designated nonattainment before such relaxation.

(July 14, 1955, ch. 360, title I, §172, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 746; amended Pub. L. 95–190, §14(a)(55), (56), Nov. 16, 1977, 91 Stat. 1402; Pub. L. 101–549, title I, §102(b), Nov. 15, 1990, 104 Stat. 2412.)

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), expeditious attainment of national ambient air quality standards; in subsec. (b), requisite provisions of plan; and in subsec. (c), attainment of applicable standard not later than July 1, 1987.

1977—Subsec. (b)(4). Pub. L. 95–190, §14(a)(55), substituted ''subsection (a)'' for ''paragraph (1)''.

Subsec. (c). Pub. L. 95–190, §14(a)(56), substituted ''December 31'' for ''July 1''.

NONATTAINMENT AREAS

Pub. L. 95–95, title I, §129(a), Aug. 7, 1977, 91 Stat. 745, as amended by Pub. L. 95–190, §14(b)(2), (3), Nov. 16, 1977, 91 Stat. 1404, provided that:

''(1) Before July 1, 1979, the interpretative regulation of the Administrator of the Environmental Protection Agency published in 41 Federal Register 55524–30, December 21, 1976, as may be modified by rule of the Administrator, shall apply except that the baseline to be used for determination of appropriate emission offsets under such regulation shall be the applicable implementation plan of the State in effect at the time of application for a permit by a proposed major stationary source (within the meaning of section 302 of the Clean Air Act) [section 7602 of this title].

''(2) Before July 1, 1979, the requirements of the regulation referred to in paragraph (1) shall be waived by the Administrator with respect to any pollutant if he determines that the State has—

''(A) an inventory of emissions of the applicable pollutant for each nonattainment area (as defined in section 171 of the Clean Air Act [section 7501 of this title]) that identifies the type, quantity, and source of such pollutant so as to provide information sufficient to demonstrate that the requirements of subparagraph (C) are being met;

''(B) an enforceable permit program which—

''(i) requires new or modified major stationary sources to meet emission limitations at least as stringent as required under the permit requirements referred to in paragraphs (2) and (3) of section 173 of the Clean Air Act [section 7503 of this title] (relating to lowest achievable emission rate and compliance by other sources) and which assures compliance with the annual reduction requirements of subparagraph (C); and

''(ii) requires existing sources to achieve such reduction in emissions in the area as may be obtained through the adoption, at a minimum of reasonably available control technology, and

''(C) a program which requires reductions in total allowable emissions in the area prior to July 1, 1979, so as to provide for the same level of emission reduction as would result from the application of the regulation referred to in paragraph (1).

The Administrator shall terminate such waiver if in his judgment the reduction in emissions actually being attained is less than the reduction on which the waiver was conditioned pursuant to subparagraph (C), or if the Administrator determines that the State is no longer in compliance with any requirement of this paragraph. Upon application by the State, the Administrator may reinstate a waiver terminated under the preceding sentence if he is satisfied that such State is in compliance with all requirements of this subsection.

''(3) Operating permits may be issued to those applicants who were properly granted construction permits, in accordance with the law and applicable regulations in effect at the time granted, for construction of a new or modified source in areas exceeding national primary air quality standards on or before the date of the enactment of this Act [Aug. 7, 1977] if such construction permits were granted prior to the date of the enactment of this Act and the person issued any such permit is able to demonstrate that the emissions from the source will be within the limitations set forth in such construction permit.''

STATE IMPLEMENTATION PLAN REVISION

Pub. L. 95–95, title I, §129(c), Aug. 7, 1977, 91 Stat. 750, as amended by Pub. L. 95–190, §14(b)(4), Nov. 16, 1977, 91 Stat. 1405, provided that: ''Notwithstanding the requirements of section 406(d)(2) [set out as an Effective Date of 1977 Amendment note under section 7401 of this title] (relating to date required for submission of certain implementation plan revisions), for purposes of

section 110(a)(2) of the Clean Air Act [section 7410(a)(2) of this title] each State in which there is any nonattainment area (as defined in part D of title I of the Clean Air Act) [this part] shall adopt and submit an implementation plan revision which meets the requirements of section 110(a)(2)(I) [section 7410(a)(2)(I) of this title] and part D of title I of the Clean Air Act [this part] not later than January 1, 1979. In the case of any State for which a plan revision adopted and submitted before such date has made the demonstration required under section 172(a)(2) of the Clean Air Act [subsec. (a)(2) of this section] (respecting impossibility of attainment before 1983), such State shall adopt and submit to the Administrator a plan revision before July 1, 1982, which meets the requirements of section 172(b) and (c) of such Act [subsecs. (b) and (c) of this section].''

§ 7503. Permit requirements

(a) In general

The permit program required by section 7502(b)(6)[1] of this title shall provide that permits to construct and operate may be issued if—

(1) in accordance with regulations issued by the Administrator for the determination of baseline emissions in a manner consistent with the assumptions underlying the applicable implementation plan approved under section 7410 of this title and this part, the permitting agency determines that—

(A) by the time the source is to commence operation, sufficient offsetting emissions reductions have been obtained, such that total allowable emissions from existing sources in the region, from new or modified sources which are not major emitting facilities, and from the proposed source will be sufficiently less than total emissions from existing sources (as determined in accordance with the regulations under this paragraph) prior to the application for such permit to construct or modify so as to represent (when considered together with the plan provisions required under section 7502 of this title) reasonable further progress (as defined in section 7501 of this title); or

(B) in the case of a new or modified major stationary source which is located in a zone (within the nonattainment area) identified by the Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted, that emissions of such pollutant resulting from the proposed new or modified major stationary source will not cause or contribute to emissions levels which exceed the allowance permitted for such pollutant for such area from new or modified major stationary sources under section 7502(c) of this title;

(2) the proposed source is required to comply with the lowest achievable emission rate;

(3) the owner or operator of the proposed new or modified source has demonstrated that all major stationary sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in such State are subject to emission limitations and are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards under this chapter; and[2]

(4) the Administrator has not determined that the applicable implementation plan is not being adequately implemented for the nonattainment area in which the proposed source is to be constructed or modified in accordance with the requirements of this part; and

(5) an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

Any emission reductions required as a precondition of the issuance of a permit under paragraph (1) shall be federally enforceable before such permit may be issued.

(b) Prohibition on use of old growth allowances

Any growth allowance included in an applicable implementation plan to meet the requirements of section 7502(b)(5) of this title (as in effect immediately before November 15, 1990) shall not be valid for use in any area that received or receives a notice under section 7410(a)(2)(H)(ii) of this title (as in effect immediately before November 15, 1990) or under section 7410(k)(1) of this title that its applicable implementation plan containing such allowance is substantially inadequate.

(c) Offsets

(1) The owner or operator of a new or modified major stationary source may comply with any offset requirement in effect under this part for increased emissions of any air pollutant only by obtaining emission reductions of such air pollutant from the same source or other sources in the same nonattainment area, except that the State may allow the owner or operator of a source to obtain such emission reductions in another nonattainment area if (A) the other area has an equal or higher nonattainment classification than the area in which the source is located and (B) emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located. Such emission reductions shall be, by the time a new or modified source commences operation, in effect and enforceable and shall assure that the total tonnage of increased emissions of the air pollutant from the new or modified source shall be offset by an equal or greater reduction, as applicable, in the actual emissions of such air pollutant from the same or other sources in the area.

(2) Emission reductions otherwise required by this chapter shall not be creditable as emissions reductions for purposes of any such offset requirement. Incidental emission reductions which are not otherwise required by this chapter shall be creditable as emission reductions for such purposes if such emission reductions meet the requirements of paragraph (1).

(d) Control technology information

The State shall provide that control technology information from permits issued under

[1] See References in Text note below.

[2] So in original. The word ''and'' probably should not appear.

this section will be promptly submitted to the Administrator for purposes of making such information available through the RACT/BACT/LAER clearinghouse to other States and to the general public.

(e) Rocket engines or motors

The permitting authority of a State shall allow a source to offset by alternative or innovative means emission increases from rocket engine and motor firing, and cleaning related to such firing, at an existing or modified major source that tests rocket engines or motors under the following conditions:

(1) Any modification proposed is solely for the purpose of expanding the testing of rocket engines or motors at an existing source that is permitted to test such engines on November 15, 1990.

(2) The source demonstrates to the satisfaction of the permitting authority of the State that it has used all reasonable means to obtain and utilize offsets, as determined on an annual basis, for the emissions increases beyond allowable levels, that all available offsets are being used, and that sufficient offsets are not available to the source.

(3) The source has obtained a written finding from the Department of Defense, Department of Transportation, National Aeronautics and Space Administration or other appropriate Federal agency, that the testing of rocket motors or engines at the facility is required for a program essential to the national security.

(4) The source will comply with an alternative measure, imposed by the permitting authority, designed to offset any emission increases beyond permitted levels not directly offset by the source. In lieu of imposing any alternative offset measures, the permitting authority may impose an emissions fee to be paid to such authority of a State which shall be an amount no greater than 1.5 times the average cost of stationary source control measures adopted in that area during the previous 3 years. The permitting authority shall utilize the fees in a manner that maximizes the emissions reductions in that area.

(July 14, 1955, ch. 360, title I, §173, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 748; amended Pub. L. 95–190, §14(a)(57), (58), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101–549, title I, §102(c), Nov. 15, 1990, 104 Stat. 2415.)

REFERENCES IN TEXT

Section 7502(b) of this title, referred to in subsec. (a), was amended generally by Pub. L. 101–549, title I, §102(b), Nov. 15, 1990, 104 Stat. 2412, and, as so amended, does not contain a par. (6). See section 7502(c)(5) of this title.

AMENDMENTS

1990—Pub. L. 101–549, §102(c)(1), made technical amendment to section catchline.

Pub. L. 101–549, §102(c)(2), (8), designated existing provisions as subsec. (a), inserted heading, and substituted ''(1) shall be federally enforceable'' for ''(1)(A) shall be legally binding'' in last sentence.

Subsec. (a)(1). Pub. L. 101–549, §102(c)(3), inserted at beginning ''in accordance with regulations issued by the Administrator for the determination of baseline emissions in a manner consistent with the assumptions underlying the applicable implementation plan approved under section 7410 of this title and this part,''.

Subsec. (a)(1)(A). Pub. L. 101–549, §102(c)(4), inserted ''sufficient offsetting emissions reductions have been obtained, such that'' after ''to commence operation,'' and substituted ''(as determined in accordance with the regulations under this paragraph)'' for ''allowed under the applicable implementation plan''.

Subsec. (a)(1)(B). Pub. L. 101–549, §102(c)(5), inserted at beginning ''in the case of a new or modified major stationary source which is located in a zone (within the nonattainment area) identified by the Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted,'' and substituted ''7502(c)'' for ''7502(b)''.

Subsec. (a)(4). Pub. L. 101–549, §102(c)(6), inserted at beginning ''the Administrator has not determined that'', substituted ''not being adequately implemented'' for ''being carried out'', and substituted ''; and'' for period at end.

Subsec. (a)(5). Pub. L. 101–549, §102(c)(7), added par. (5).

Subsec. (b). Pub. L. 101–549, §102(c)(9), added subsec. (b).

Subsecs. (c) to (e). Pub. L. 101–549, §102(c)(10), added subsecs. (c) to (e).

1977—Par. (1)(A). Pub. L. 95–190, §14(a)(57), inserted ''or modified'' after ''from new'' and ''applicable'' before ''implementation plan'', and substituted ''source'' for ''facility'' wherever appearing.

Par. (4). Pub. L. 95–190, §14(a)(58), added par. (4).

FAILURE TO ATTAIN NATIONAL PRIMARY AMBIENT AIR QUALITY STANDARDS UNDER CLEAN AIR ACT

Pub. L. 100–202, §101(f) [title II], Dec. 22, 1987, 101 Stat. 1329–187, 1329–199, provided that: ''No restriction or prohibition on construction, permitting, or funding under sections 110(a)(2)(I), 173(4), 176(a), 176(b), or 316 of the Clean Air Act [sections 7410(a)(2)(I), 7503(4), 7506(a), (b), 7616 of this title] shall be imposed or take effect during the period prior to August 31, 1988, by reason of (1) the failure of any nonattainment area to attain the national primary ambient air quality standard under the Clean Air Act [this chapter] for photochemical oxidants (ozone) or carbon monoxide (or both) by December 31, 1987, (2) the failure of any State to adopt and submit to the Administrator of the Environmental Protection Agency an implementation plan that meets the requirements of part D of title I of such Act [this part] and provides for attainment of such standards by December 31, 1987, (3) the failure of any State or designated local government to implement the applicable implementation plan, or (4) any combination of the foregoing. During such period and consistent with the preceding sentence, the issuance of a permit (including required offsets) under section 173 of such Act [this section] for the construction or modification of a source in a nonattainment area shall not be denied solely or partially by reason of the reference contained in section 171(l) of such Act [section 7501(1) of this title] to the applicable date established in section 172(a) [section 7502(a) of this title]. This subsection [probably means the first 3 sentences of this note] shall not apply to any restriction or prohibition in effect under sections 110(a)(2)(I), 173(4), 176(a), 176(b), or 316 of such Act prior to the enactment of this section [Dec. 22, 1987]. Prior to August 31, 1988, the Administrator of the Environmental Protection Agency shall evaluate air quality data and make determinations with respect to which areas throughout the nation have attained, or failed to attain, either or both of the national primary ambient air quality standards referred to in subsection (a) [probably means the first 3 sentences of this note] and shall take appropriate steps to designate those areas failing to attain either or both of such standards as nonattainment areas within the meaning of part D of title I of the Clean Air Act.''

§ 7504. Planning procedures

(a) In general

For any ozone, carbon monoxide, or PM–10 nonattainment area, the State containing such area and elected officials of affected local governments shall, before the date required for submittal of the inventory described under sections 7511a(a)(1) and 7512a(a)(1) of this title, jointly review and update as necessary the planning procedures adopted pursuant to this subsection as in effect immediately before November 15, 1990, or develop new planning procedures pursuant to this subsection, as appropriate. In preparing such procedures the State and local elected officials shall determine which elements of a revised implementation plan will be developed, adopted, and implemented (through means including enforcement) by the State and which by local governments or regional agencies, or any combination of local governments, regional agencies, or the State. The implementation plan required by this part shall be prepared by an organization certified by the State, in consultation with elected officials of local governments and in accordance with the determination under the second sentence of this subsection. Such organization shall include elected officials of local governments in the affected area, and representatives of the State air quality planning agency, the State transportation planning agency, the metropolitan planning organization designated to conduct the continuing, cooperative and comprehensive transportation planning process for the area under section 134 of title 23, the organization responsible for the air quality maintenance planning process under regulations implementing this chapter, and any other organization with responsibilities for developing, submitting, or implementing the plan required by this part. Such organization may be one that carried out these functions before November 15, 1990.

(b) Coordination

The preparation of implementation plan provisions and subsequent plan revisions under the continuing transportation-air quality planning process described in section 7408(e) of this title shall be coordinated with the continuing, cooperative and comprehensive transportation planning process required under section 134 of title 23, and such planning processes shall take into account the requirements of this part.

(c) Joint planning

In the case of a nonattainment area that is included within more than one State, the affected States may jointly, through interstate compact or otherwise, undertake and implement all or part of the planning procedures described in this section.

(July 14, 1955, ch. 360, title I, §174, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 748; amended Pub. L. 101–549, title I, §102(d), Nov. 15, 1990, 104 Stat. 2417.)

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), preparation of implementation plan by designated organization; and in subsec. (b), coordination of plan preparation.

§ 7505. Environmental Protection Agency grants

(a) Plan revision development costs

The Administrator shall make grants to any organization of local elected officials with transportation or air quality maintenance planning responsibilities recognized by the State under section 7504(a) of this title for payment of the reasonable costs of developing a plan revision under this part.

(b) Uses of grant funds

The amount granted to any organization under subsection (a) shall be 100 percent of any additional costs of developing a plan revision under this part for the first two fiscal years following receipt of the grant under this paragraph, and shall supplement any funds available under Federal law to such organization for transportation or air quality maintenance planning. Grants under this section shall not be used for construction.

(July 14, 1955, ch. 360, title I, §175, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 749.)

§ 7505a. Maintenance plans

(a) Plan revision

Each State which submits a request under section 7407(d) of this title for redesignation of a nonattainment area for any air pollutant as an area which has attained the national primary ambient air quality standard for that air pollutant shall also submit a revision of the applicable State implementation plan to provide for the maintenance of the national primary ambient air quality standard for such air pollutant in the area concerned for at least 10 years after the redesignation. The plan shall contain such additional measures, if any, as may be necessary to ensure such maintenance.

(b) Subsequent plan revisions

8 years after redesignation of any area as an attainment area under section 7407(d) of this title, the State shall submit to the Administrator an additional revision of the applicable State implementation plan for maintaining the national primary ambient air quality standard for 10 years after the expiration of the 10-year period referred to in subsection (a).

(c) Nonattainment requirements applicable pending plan approval

Until such plan revision is approved and an area is redesignated as attainment for any area designated as a nonattainment area, the requirements of this part shall continue in force and effect with respect to such area.

(d) Contingency provisions

Each plan revision submitted under this section shall contain such contingency provisions as the Administrator deems necessary to assure that the State will promptly correct any violation of the standard which occurs after the redesignation of the area as an attainment area. Such provisions shall include a requirement that the State will implement all measures with respect to the control of the air pollutant concerned which were contained in the State implementation plan for the area before redesignation

of the area as an attainment area. The failure of any area redesignated as an attainment area to maintain the national ambient air quality standard concerned shall not result in a requirement that the State revise its State implementation plan unless the Administrator, in the Administrator's discretion, requires the State to submit a revised State implementation plan.

(July 14, 1955, ch. 360, title I, § 175A, as added Pub. L. 101–549, title I, § 102(e), Nov. 15, 1990, 104 Stat. 2418.)

§ 7506. Limitations on certain Federal assistance

(a), (b) Repealed. Pub. L. 101–549, title I, § 110(4), Nov. 15, 1990, 104 Stat. 2470

(c) Activities not conforming to approved or promulgated plans

(1) No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan after it has been approved or promulgated under section 7410 of this title. No metropolitan planning organization designated under section 134 of title 23, shall give its approval to any project, program, or plan which does not conform to an implementation plan approved or promulgated under section 7410 of this title. The assurance of conformity to such an implementation plan shall be an affirmative responsibility of the head of such department, agency, or instrumentality. Conformity to an implementation plan means—

(A) conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and

(B) that such activities will not—

(i) cause or contribute to any new violation of any standard in any area;

(ii) increase the frequency or severity of any existing violation of any standard in any area; or

(iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

The determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel and congestion estimates as determined by the metropolitan planning organization or other agency authorized to make such estimates.

(2) Any transportation plan or program developed pursuant to title 23 or chapter 53 of title 49 shall implement the transportation provisions of any applicable implementation plan approved under this chapter applicable to all or part of the area covered by such transportation plan or program. No Federal agency may approve, accept or fund any transportation plan, program or project unless such plan, program or project has been found to conform to any applicable implementation plan in effect under this chapter. In particular—

(A) no transportation plan or transportation improvement program may be adopted by a metropolitan planning organization designated under title 23 or chapter 53 of title 49, or be found to be in conformity by a metropolitan planning organization until a final determination has been made that emissions expected from implementation of such plans and programs are consistent with estimates of emissions from motor vehicles and necessary emissions reductions contained in the applicable implementation plan, and that the plan or program will conform to the requirements of paragraph (1)(B);

(B) no metropolitan planning organization or other recipient of funds under title 23 or chapter 53 of title 49 shall adopt or approve a transportation improvement program of projects until it determines that such program provides for timely implementation of transportation control measures consistent with schedules included in the applicable implementation plan;

(C) a transportation project may be adopted or approved by a metropolitan planning organization or any recipient of funds designated under title 23 or chapter 53 of title 49, or found in conformity by a metropolitan planning organization or approved, accepted, or funded by the Department of Transportation only if it meets either the requirements of subparagraph (D) or the following requirements—

(i) such a project comes from a conforming plan and program;

(ii) the design concept and scope of such project have not changed significantly since the conformity finding regarding the plan and program from which the project derived; and

(iii) the design concept and scope of such project at the time of the conformity determination for the program was adequate to determine emissions.

(D) Any project not referred to in subparagraph (C) shall be treated as conforming to the applicable implementation plan only if it is demonstrated that the projected emissions from such project, when considered together with emissions projected for the conforming transportation plans and programs within the nonattainment area, do not cause such plans and programs to exceed the emission reduction projections and schedules assigned to such plans and programs in the applicable implementation plan.

(E) The appropriate metropolitan planning organization shall redetermine conformity of existing transportation plans and programs not later than 2 years after the date on which the Administrator—

(i) finds a motor vehicle emissions budget to be adequate in accordance with section 93.118(e)(4) of title 40, Code of Federal Regulations (as in effect on October 1, 2004);

(ii) approves an implementation plan that establishes a motor vehicle emissions budget if that budget has not yet been determined to be adequate in accordance with clause (i); or

(iii) promulgates an implementation plan that establishes or revises a motor vehicle emissions budget.

(3) Until such time as the implementation plan revision referred to in paragraph (4)(C)[1] is approved, conformity of such plans, programs, and projects will be demonstrated if—

(A) the transportation plans and programs—

(i) are consistent with the most recent estimates of mobile source emissions;

(ii) provide for the expeditious implementation of transportation control measures in the applicable implementation plan; and

(iii) with respect to ozone and carbon monoxide nonattainment areas, contribute to annual emissions reductions consistent with sections 7511a(b)(1) and 7512a(a)(7) of this title; and

(B) the transportation projects—

(i) come from a conforming transportation plan and program as defined in subparagraph (A) or for 12 months after November 15, 1990, from a transportation program found to conform within 3 years prior to November 15, 1990; and

(ii) in carbon monoxide nonattainment areas, eliminate or reduce the severity and number of violations of the carbon monoxide standards in the area substantially affected by the project.

With regard to subparagraph (B)(ii), such determination may be made as part of either the conformity determination for the transportation program or for the individual project taken as a whole during the environmental review phase of project development.

(4) CRITERIA AND PROCEDURES FOR DETERMINING CONFORMITY.—

(A) IN GENERAL.—The Administrator shall promulgate, and periodically update, criteria and procedures for determining conformity (except in the case of transportation plans, programs, and projects) of, and for keeping the Administrator informed about, the activities referred to in paragraph (1).

(B) TRANSPORTATION PLANS, PROGRAMS, AND PROJECTS.—The Administrator, with the concurrence of the Secretary of Transportation, shall promulgate, and periodically update, criteria and procedures for demonstrating and assuring conformity in the case of transportation plans, programs, and projects.

(C) CIVIL ACTION TO COMPEL PROMULGATION.—A civil action may be brought against the Administrator and the Secretary of Transportation under section 7604 of this title to compel promulgation of such criteria and procedures and the Federal district court shall have jurisdiction to order such promulgation.

(D) The procedures and criteria shall, at a minimum—

(i) address the consultation procedures to be undertaken by metropolitan planning organizations and the Secretary of Transportation with State and local air quality agencies and State departments of transportation before such organizations and the Secretary make conformity determinations;

(ii) address the appropriate frequency for making conformity determinations, but the frequency for making conformity determinations on updated transportation plans and programs shall be every 4 years, except in a case in which—

(I) the metropolitan planning organization elects to update a transportation plan or program more frequently; or

(II) the metropolitan planning organization is required to determine conformity in accordance with paragraph (2)(E); and

(iii) address how conformity determinations will be made with respect to maintenance plans.

(E) INCLUSION OF CRITERIA AND PROCEDURES IN SIP.—Not later than 2 years after August 10, 2005, the procedures under subparagraph (A) shall include a requirement that each State include in the State implementation plan criteria and procedures for consultation required by subparagraph (D)(i), and enforcement and enforceability (pursuant to sections 93.125(c) and 93.122(a)(4)(ii) of title 40, Code of Federal Regulations) in accordance with the Administrator's criteria and procedures for consultation, enforcement and enforceability.

(F) Compliance with the rules of the Administrator for determining the conformity of transportation plans, programs, and projects funded or approved under title 23 or chapter 53 of title 49 to State or Federal implementation plans shall not be required for traffic signal synchronization projects prior to the funding, approval or implementation of such projects. The supporting regional emissions analysis for any conformity determination made with respect to a transportation plan, program, or project shall consider the effect on emissions of any such project funded, approved, or implemented prior to the conformity determination.

(5) APPLICABILITY.—This subsection shall apply only with respect to—

(A) a nonattainment area and each pollutant for which the area is designated as a nonattainment area; and

(B) an area that was designated as a nonattainment area but that was later redesignated by the Administrator as an attainment area and that is required to develop a maintenance plan under section 7505a of this title with respect to the specific pollutant for which the area was designated nonattainment.

(6) Notwithstanding paragraph 5,[2] this subsection shall not apply with respect to an area designated nonattainment under section 7407(d)(1) of this title until 1 year after that area is first designated nonattainment for a specific national ambient air quality standard. This paragraph only applies with respect to the national ambient air quality standard for which an area is newly designated nonattainment and does not affect the area's requirements with respect to all other national ambient air quality standards for which the area is designated nonattainment or has been redesignated from nonattainment to attainment with a maintenance plan pursuant to section 7505a[1] of this title (including any pre-existing national ambient air

[1] See References in Text note below.

[2] So in original. Probably should be ''paragraph (5),''.

quality standard for a pollutant for which a new or revised standard has been issued).

(7) CONFORMITY HORIZON FOR TRANSPORTATION PLANS.—

(A) IN GENERAL.—Each conformity determination required under this section for a transportation plan under section 134(i) of title 23 or section 5303(i) of title 49 shall require a demonstration of conformity for the period ending on either the final year of the transportation plan, or at the election of the metropolitan planning organization, after consultation with the air pollution control agency and solicitation of public comments and consideration of such comments, the longest of the following periods:

(i) The first 10-year period of any such transportation plan.

(ii) The latest year in the implementation plan applicable to the area that contains a motor vehicle emission budget.

(iii) The year after the completion date of a regionally significant project if the project is included in the transportation improvement program or the project requires approval before the subsequent conformity determination.

(B) REGIONAL EMISSIONS ANALYSIS.—The conformity determination shall be accompanied by a regional emissions analysis for the last year of the transportation plan and for any year shown to exceed emission budgets by a prior analysis, if such year extends beyond the applicable period as determined under subparagraph (A).

(C) EXCEPTION.—In any case in which an area has a revision to an implementation plan under section 7505a(b) of this title and the Administrator has found the motor vehicles emissions budgets from that revision to be adequate in accordance with section 93.118(e)(4) of title 40, Code of Federal Regulations (as in effect on October 1, 2004), or has approved the revision, the demonstration of conformity at the election of the metropolitan planning organization, after consultation with the air pollution control agency and solicitation of public comments and consideration of such comments, shall be required to extend only through the last year of the implementation plan required under section 7505a(b) of this title.

(D) EFFECT OF ELECTION.—Any election by a metropolitan planning organization under this paragraph shall continue in effect until the metropolitan planning organization elects otherwise.

(E) AIR POLLUTION CONTROL AGENCY DEFINED.—In this paragraph, the term ''air pollution control agency'' means an air pollution control agency (as defined in section 7602(b) of this title) that is responsible for developing plans or controlling air pollution within the area covered by a transportation plan.

(8) SUBSTITUTION OF TRANSPORTATION CONTROL MEASURES.—

(A) IN GENERAL.—Transportation control measures that are specified in an implementation plan may be replaced or added to the implementation plan with alternate or additional transportation control measures—

(i) if the substitute measures achieve equivalent or greater emissions reductions than the control measure to be replaced, as demonstrated with an emissions impact analysis that is consistent with the current methodology used for evaluating the replaced control measure in the implementation plan;

(ii) if the substitute control measures are implemented—

(I) in accordance with a schedule that is consistent with the schedule provided for control measures in the implementation plan; or

(II) if the implementation plan date for implementation of the control measure to be replaced has passed, as soon as practicable after the implementation plan date but not later than the date on which emission reductions are necessary to achieve the purpose of the implementation plan;

(iii) if the substitute and additional control measures are accompanied with evidence of adequate personnel and funding and authority under State or local law to implement, monitor, and enforce the control measures;

(iv) if the substitute and additional control measures were developed through a collaborative process that included—

(I) participation by representatives of all affected jurisdictions (including local air pollution control agencies, the State air pollution control agency, and State and local transportation agencies);

(II) consultation with the Administrator; and

(III) reasonable public notice and opportunity for comment; and

(v) if the metropolitan planning organization, State air pollution control agency, and the Administrator concur with the equivalency of the substitute or additional control measures.

(B) ADOPTION.—(i) Concurrence by the metropolitan planning organization, State air pollution control agency and the Administrator as required by subparagraph (A)(v) shall constitute adoption of the substitute or additional control measures so long as the requirements of subparagraphs (A)(i), (A)(ii), (A)(iii) and (A)(iv) are met.

(ii) Once adopted, the substitute or additional control measures become, by operation of law, part of the State implementation plan and become federally enforceable.

(iii) Within 90 days of its concurrence under subparagraph (A)(v), the State air pollution control agency shall submit the substitute or additional control measure to the Administrator for incorporation in the codification of the applicable implementation plan. Nothwithstanding[3] any other provision of this chapter, no additional State process shall be necessary to support such revision to the applicable plan.

(C) NO REQUIREMENT FOR EXPRESS PERMISSION.—The substitution or addition of a trans-

[3] So in original. Probably should be ''Notwithstanding''.

portation control measure in accordance with this paragraph and the funding or approval of such a control measure shall not be contingent on the existence of any provision in the applicable implementation plan that expressly permits such a substitution or addition.

(D) NO REQUIREMENT FOR NEW CONFORMITY DETERMINATION.—The substitution or addition of a transportation control measure in accordance with this paragraph shall not require—

(i) a new conformity determination for the transportation plan; or

(ii) a revision of the implementation plan.

(E) CONTINUATION OF CONTROL MEASURE BEING REPLACED.—A control measure that is being replaced by a substitute control measure under this paragraph shall remain in effect until the substitute control measure is adopted by the State pursuant to subparagraph (B).

(F) EFFECT OF ADOPTION.—Adoption of a substitute control measure shall constitute rescission of the previously applicable control measure.

(9) LAPSE OF CONFORMITY.—If a conformity determination required under this subsection for a transportation plan under section 134(i) of title 23 or section 5303(i) of title 49 or a transportation improvement program under section 134(j) of such title 23 or under section 5303(j) of such title 49 is not made by the applicable deadline and such failure is not corrected by additional measures to either reduce motor vehicle emissions sufficient to demonstrate compliance with the requirements of this subsection within 12 months after such deadline or other measures sufficient to correct such failures, the transportation plan shall lapse.

(10) LAPSE.—In this subsection, the term ''lapse'' means that the conformity determination for a transportation plan or transportation improvement program has expired, and thus there is no currently conforming transportation plan or transportation improvement program.

(d) Priority of achieving and maintaining national primary ambient air quality standards

Each department, agency, or instrumentality of the Federal Government having authority to conduct or support any program with air-quality related transportation consequences shall give priority in the exercise of such authority, consistent with statutory requirements for allocation among States or other jurisdictions, to the implementation of those portions of plans prepared under this section to achieve and maintain the national primary ambient air-quality standard. This paragraph extends to, but is not limited to, authority exercised under chapter 53 of title 49, title 23, and the Housing and Urban Development Act.

(July 14, 1955, ch. 360, title I, §176, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 749; amended Pub. L. 95–190, §14(a)(59), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101–549, title I, §§101(f), 110(4), Nov. 15, 1990, 104 Stat. 2409, 2470; Pub. L. 104–59, title III, §305(b), Nov. 28, 1995, 109 Stat. 580; Pub. L. 104–260, §1, Oct. 9, 1996, 110 Stat. 3175; Pub. L. 106–377, §1(a)(1) [title III], Oct. 27, 2000, 114 Stat. 1441, 1441A–44; Pub. L. 109–59, title VI, §6011(a)–(f), Aug. 10, 2005, 119 Stat. 1878–1881.)

REFERENCES IN TEXT

Paragraph (4) of subsec. (c), referred to in subsec. (c)(3), was amended by Pub. L. 109–59, title VI, §6011(f), Aug. 10, 2005, 119 Stat. 1881, to redesignate subpar. (C) as (E), strike it out, and add new subpars. (C) and (E). See 2005 Amendment notes below.

Section 7505a of this title, referred to in subsec. (c)(6), was in the original ''section 175(A)'' and was translated as reading ''section 175A'', meaning section 175A of act July 14, 1955, which is classified to section 7505a of this title, to reflect the probable intent of Congress.

The Housing and Urban Development Act, referred to in subsec. (d), may be the name for a series of acts sharing the same name but enacted in different years by Pub. L. 89–117, Aug. 10, 1965, 79 Stat. 451; Pub. L. 90–448, Aug. 1, 1968, 82 Stat. 476; Pub. L. 91–152, Dec. 24, 1969, 83 Stat. 379; and Pub. L. 91–609, Dec. 31, 1970, 84 Stat. 1770, respectively. For complete classification of these Acts to the Code, see Short Title notes set out under section 1701 of Title 12, Banks and Banking, and Tables.

CODIFICATION

In subsecs. (c)(2) and (d), ''chapter 53 of title 49'' substituted for ''the Urban Mass Transportation Act [49 App. U.S.C. 1601 et seq.]'' and in subsec. (c)(4)(F) substituted for ''Federal Transit Act'' on authority of Pub. L. 103–272, §6(b), July 5, 1994, 108 Stat. 1378 (the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation), and of Pub. L. 102–240, title III, §3003(b), Dec. 18, 1991, 105 Stat. 2088, which provided that references in laws to the Urban Mass Transportation Act of 1964 be deemed to be references to the Federal Transit Act.

AMENDMENTS

2005—Subsec. (c)(2)(E). Pub. L. 109–59, §6011(a), added subpar. (E).

Subsec. (c)(4). Pub. L. 109–59, §6011(f)(1)–(3), inserted par. (4) and subpar. (A) headings, in first sentence substituted ''The Administrator shall promulgate, and periodically update,'' for ''No later than one year after November 15, 1990, the Administrator shall promulgate'', designated second sentence as subpar. (B), inserted heading, substituted ''The Administrator, with the concurrence of the Secretary of Transportation, shall promulgate, and periodically update,'' for ''No later than one year after November 15, 1990, the Administrator, with the concurrence of the Secretary of Transportation, shall promulgate'', designated third sentence as subpar. (C), inserted heading, substituted ''A civil action'' for ''A suit'', and redesignated former subpars. (B) to (D) as (D) to (F), respectively.

Subsec. (c)(4)(B)(ii). Pub. L. 109–59, §6011(b), amended cl. (ii) generally. Prior to amendment, cl. (ii) read as follows: ''address the appropriate frequency for making conformity determinations, but in no case shall such determinations for transportation plans and programs be less frequent than every three years; and''.

Subsec. (c)(4)(E). Pub. L. 109–59, §6011(f)(4), added subpar. (E) and struck out former subpar. (E) which read as follows: ''Such procedures shall also include a requirement that each State shall submit to the Administrator and the Secretary of Transportation within 24 months of November 15, 1990, a revision to its implementation plan that includes criteria and procedures for assessing the conformity of any plan, program, or project subject to the conformity requirements of this subsection.''

Subsec. (c)(7) to (10). Pub. L. 109–59, §6011(c)–(e), added pars. (7) to (10).

2000—Subsec. (c)(6). Pub. L. 106–377 added par. (6).

1996—Subsec. (c)(4)(D). Pub. L. 104–260 added subpar. (D).

1995—Subsec. (c)(5). Pub. L. 104–59 added par. (5).

1990—Subsecs. (a), (b). Pub. L. 101–549, §110(4), struck out subsec. (a) which related to approval of projects or award of grants, and subsec. (b) which related to implementation of approved or promulgated plans.

Subsec. (c). Pub. L. 101–549, §101(f), designated existing provisions as par. (1), struck out ''(1)'', ''(2)'', ''(3)'',

and ''(4)'' before ''engage in'', ''support in'', ''license or'', and ''approve, any'', respectively, substituted ''conform to an implementation plan after it'' for ''conform to a plan after it'', ''conform to an implementation plan approved'' for ''conform to a plan approved'', and ''conformity to such an implementation plan shall'' for ''conformity to such a plan shall'', inserted ''Conformity to an implementation plan means—'' followed immediately by subpars. (A) and (B) and closing provisions relating to determination of conformity being based on recent estimates of emissions and the determination of such estimates, and added pars. (2) to (4).

1977—Subsec. (a)(1). Pub. L. 95–190 inserted ''national'' before ''primary''.

REGULATIONS

Pub. L. 109–59, title VI, § 6011(g), Aug. 10, 2005, 119 Stat. 1882, provided that: ''Not later than 2 years after the date of enactment of this Act [Aug. 10, 2005], the Administrator of the Environmental Protection Agency shall promulgate revised regulations to implement the changes made by this section [amending this section].''

§ 7506a. Interstate transport commissions

(a) Authority to establish interstate transport regions

Whenever, on the Administrator's own motion or by petition from the Governor of any State, the Administrator has reason to believe that the interstate transport of air pollutants from one or more States contributes significantly to a violation of a national ambient air quality standard in one or more other States, the Administrator may establish, by rule, a transport region for such pollutant that includes such States. The Administrator, on the Administrator's own motion or upon petition from the Governor of any State, or upon the recommendation of a transport commission established under subsection (b), may—

(1) add any State or portion of a State to any region established under this subsection whenever the Administrator has reason to believe that the interstate transport of air pollutants from such State significantly contributes to a violation of the standard in the transport region, or

(2) remove any State or portion of a State from the region whenever the Administrator has reason to believe that the control of emissions in that State or portion of the State pursuant to this section will not significantly contribute to the attainment of the standard in any area in the region.

The Administrator shall approve or disapprove any such petition or recommendation within 18 months of its receipt. The Administrator shall establish appropriate proceedings for public participation regarding such petitions and motions, including notice and comment.

(b) Transport commissions

(1) Establishment

Whenever the Administrator establishes a transport region under subsection (a), the Administrator shall establish a transport commission comprised of (at a minimum) each of the following members:

(A) The Governor of each State in the region or the designee of each such Governor.

(B) The Administrator or the Administrator's designee.

(C) The Regional Administrator (or the Administrator's designee) for each Regional Office for each Environmental Protection Agency Region affected by the transport region concerned.

(D) An air pollution control official representing each State in the region, appointed by the Governor.

Decisions of, and recommendations and requests to, the Administrator by each transport commission may be made only by a majority vote of all members other than the Administrator and the Regional Administrators (or designees thereof).

(2) Recommendations

The transport commission shall assess the degree of interstate transport of the pollutant or precursors to the pollutant throughout the transport region, assess strategies for mitigating the interstate pollution, and recommend to the Administrator such measures as the Commission determines to be necessary to ensure that the plans for the relevant States meet the requirements of section 7410(a)(2)(D) of this title. Such commission shall not be subject to the provisions of the Federal Advisory Committee Act (5 U.S.C. App.).

(c) Commission requests

A transport commission established under subsection (b) may request the Administrator to issue a finding under section 7410(k)(5) of this title that the implementation plan for one or more of the States in the transport region is substantially inadequate to meet the requirements of section 7410(a)(2)(D) of this title. The Administrator shall approve, disapprove, or partially approve and partially disapprove such a request within 18 months of its receipt and, to the extent the Administrator approves such request, issue the finding under section 7410(k)(5) of this title at the time of such approval. In acting on such request, the Administrator shall provide an opportunity for public participation and shall address each specific recommendation made by the commission. Approval or disapproval of such a request shall constitute final agency action within the meaning of section 7607(b) of this title.

(July 14, 1955, ch. 360, title I, § 176A, as added Pub. L. 101–549, title I, § 102(f)(1), Nov. 15, 1990, 104 Stat. 2419.)

REFERENCES IN TEXT

The Federal Advisory Committee Act, referred to in subsec. (b)(2), is Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

§ 7507. New motor vehicle emission standards in nonattainment areas

Notwithstanding section 7543(a) of this title, any State which has plan provisions approved under this part may adopt and enforce for any model year standards relating to control of emissions from new motor vehicles or new motor vehicle engines and take such other actions as are referred to in section 7543(a) of this title respecting such vehicles if—

(1) such standards are identical to the California standards for which a waiver has been granted for such model year, and

(2) California and such State adopt such standards at least two years before commencement of such model year (as determined by regulations of the Administrator).

Nothing in this section or in subchapter II of this chapter shall be construed as authorizing any such State to prohibit or limit, directly or indirectly, the manufacture or sale of a new motor vehicle or motor vehicle engine that is certified in California as meeting California standards, or to take any action of any kind to create, or have the effect of creating, a motor vehicle or motor vehicle engine different than a motor vehicle or engine certified in California under California standards (a ''third vehicle'') or otherwise create such a ''third vehicle''.

(July 14, 1955, ch. 360, title I, §177, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 750; amended Pub. L. 101–549, title II, §232, Nov. 15, 1990, 104 Stat. 2529.)

AMENDMENTS

1990—Pub. L. 101–549 added sentence at end prohibiting States from limiting or prohibiting sale or manufacture of new vehicles or engines certified in California as having met California standards and from taking any actions where effect of those actions would be to create a ''third vehicle''.

§ 7508. Guidance documents

The Administrator shall issue guidance documents under section 7408 of this title for purposes of assisting States in implementing requirements of this part respecting the lowest achievable emission rate. Such a document shall be published not later than nine months after August 7, 1977, and shall be revised at least every two years thereafter.

(July 14, 1955, ch. 360, title I, §178, as added Pub. L. 95–95, title I, §129(b), Aug. 7, 1977, 91 Stat. 750.)

§ 7509. Sanctions and consequences of failure to attain

(a) State failure

For any implementation plan or plan revision required under this part (or required in response to a finding of substantial inadequacy as described in section 7410(k)(5) of this title), if the Administrator—

(1) finds that a State has failed, for an area designated nonattainment under section 7407(d) of this title, to submit a plan, or to submit 1 or more of the elements (as determined by the Administrator) required by the provisions of this chapter applicable to such an area, or has failed to make a submission for such an area that satisfies the minimum criteria established in relation to any such element under section 7410(k) of this title,

(2) disapproves a submission under section 7410(k) of this title, for an area designated nonattainment under section 7407 of this title, based on the submission's failure to meet one or more of the elements required by the provisions of this chapter applicable to such an area,

(3)(A) determines that a State has failed to make any submission as may be required under this chapter, other than one described under paragraph (1) or (2), including an adequate maintenance plan, or has failed to make any submission, as may be required under this chapter, other than one described under paragraph (1) or (2), that satisfies the minimum criteria established in relation to such submission under section 7410(k)(1)(A) of this title, or

(B) disapproves in whole or in part a submission described under subparagraph (A), or

(4) finds that any requirement of an approved plan (or approved part of a plan) is not being implemented,

unless such deficiency has been corrected within 18 months after the finding, disapproval, or determination referred to in paragraphs (1), (2), (3), and (4), one of the sanctions referred to in subsection (b) shall apply, as selected by the Administrator, until the Administrator determines that the State has come into compliance, except that if the Administrator finds a lack of good faith, sanctions under both paragraph (1) and paragraph (2) of subsection (b) shall apply until the Administrator determines that the State has come into compliance. If the Administrator has selected one of such sanctions and the deficiency has not been corrected within 6 months thereafter, sanctions under both paragraph (1) and paragraph (2) of subsection (b) shall apply until the Administrator determines that the State has come into compliance. In addition to any other sanction applicable as provided in this section, the Administrator may withhold all or part of the grants for support of air pollution planning and control programs that the Administrator may award under section 7405 of this title.

(b) Sanctions

The sanctions available to the Administrator as provided in subsection (a) are as follows:

(1) Highway sanctions

(A) The Administrator may impose a prohibition, applicable to a nonattainment area, on the approval by the Secretary of Transportation of any projects or the awarding by the Secretary of any grants, under title 23 other than projects or grants for safety where the Secretary determines, based on accident or other appropriate data submitted by the State, that the principal purpose of the project is an improvement in safety to resolve a demonstrated safety problem and likely will result in a significant reduction in, or avoidance of, accidents. Such prohibition shall become effective upon the selection by the Administrator of this sanction.

(B) In addition to safety, projects or grants that may be approved by the Secretary, notwithstanding the prohibition in subparagraph (A), are the following—

(i) capital programs for public transit;

(ii) construction or restriction of certain roads or lanes solely for the use of passenger buses or high occupancy vehicles;

(iii) planning for requirements for employers to reduce employee work-trip-related vehicle emissions;

(iv) highway ramp metering, traffic signalization, and related programs that improve traffic flow and achieve a net emission reduction;

(v) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit operations;

(vi) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use, through road use charges, tolls, parking surcharges, or other pricing mechanisms, vehicle restricted zones or periods, or vehicle registration programs;

(vii) programs for breakdown and accident scene management, nonrecurring congestion, and vehicle information systems, to reduce congestion and emissions; and

(viii) such other transportation-related programs as the Administrator, in consultation with the Secretary of Transportation, finds would improve air quality and would not encourage single occupancy vehicle capacity.

In considering such measures, the State should seek to ensure adequate access to downtown, other commercial, and residential areas, and avoid increasing or relocating emissions and congestion rather than reducing them.

(2) Offsets

In applying the emissions offset requirements of section 7503 of this title to new or modified sources or emissions units for which a permit is required under this part, the ratio of emission reductions to increased emissions shall be at least 2 to 1.

(c) Notice of failure to attain

(1) As expeditiously as practicable after the applicable attainment date for any nonattainment area, but not later than 6 months after such date, the Administrator shall determine, based on the area's air quality as of the attainment date, whether the area attained the standard by that date.

(2) Upon making the determination under paragraph (1), the Administrator shall publish a notice in the Federal Register containing such determination and identifying each area that the Administrator has determined to have failed to attain. The Administrator may revise or supplement such determination at any time based on more complete information or analysis concerning the area's air quality as of the attainment date.

(d) Consequences for failure to attain

(1) Within 1 year after the Administrator publishes the notice under subsection (c)(2) (relating to notice of failure to attain), each State containing a nonattainment area shall submit a revision to the applicable implementation plan meeting the requirements of paragraph (2) of this subsection.

(2) The revision required under paragraph (1) shall meet the requirements of section 7410 of this title and section 7502 of this title. In addition, the revision shall include such additional measures as the Administrator may reasonably prescribe, including all measures that can be feasibly implemented in the area in light of technological achievability, costs, and any nonair quality and other air quality-related health and environmental impacts.

(3) The attainment date applicable to the revision required under paragraph (1) shall be the same as provided in the provisions of section 7502(a)(2) of this title, except that in applying such provisions the phrase ''from the date of the notice under section 7509(c)(2) of this title'' shall be substituted for the phrase ''from the date such area was designated nonattainment under section 7407(d) of this title'' and for the phrase ''from the date of designation as nonattainment''.

(July 14, 1955, ch. 360, title I, § 179, as added Pub. L. 101–549, title I, § 102(g), Nov. 15, 1990, 104 Stat. 2420.)

§ 7509a. International border areas

(a) Implementation plans and revisions

Notwithstanding any other provision of law, an implementation plan or plan revision required under this chapter shall be approved by the Administrator if—

(1) such plan or revision meets all the requirements applicable to it under the[1] chapter other than a requirement that such plan or revision demonstrate attainment and maintenance of the relevant national ambient air quality standards by the attainment date specified under the applicable provision of this chapter, or in a regulation promulgated under such provision, and

(2) the submitting State establishes to the satisfaction of the Administrator that the implementation plan of such State would be adequate to attain and maintain the relevant national ambient air quality standards by the attainment date specified under the applicable provision of this chapter, or in a regulation promulgated under such provision, but for emissions emanating from outside of the United States.

(b) Attainment of ozone levels

Notwithstanding any other provision of law, any State that establishes to the satisfaction of the Administrator that, with respect to an ozone nonattainment area in such State, such State would have attained the national ambient air quality standard for ozone by the applicable attainment date, but for emissions emanating from outside of the United States, shall not be subject to the provisions of section 7511(a)(2) or (5) of this title or section 7511d of this title.

(c) Attainment of carbon monoxide levels

Notwithstanding any other provision of law, any State that establishes to the satisfaction of the Administrator, with respect to a carbon monoxide nonattainment area in such State, that such State has attained the national ambient air quality standard for carbon monoxide by the applicable attainment date, but for emissions emanating from outside of the United States, shall not be subject to the provisions of section 7512(b)(2) or (9)[2] of this title.

---

[1] So in original. Probably should be ''this''.

[2] So in original. Section 7512(b) of this title does not contain a par. (9).

(d) Attainment of PM–10 levels

Notwithstanding any other provision of law, any State that establishes to the satisfaction of the Administrator that, with respect to a PM–10 nonattainment area in such State, such State would have attained the national ambient air quality standard for carbon monoxide by the applicable attainment date, but for emissions emanating from outside the United States, shall not be subject to the provisions of section 7513(b)(2) of this title.

(July 14, 1955, ch. 360, title I, §179B, as added Pub. L. 101–549, title VIII, §818, Nov. 15, 1990, 104 Stat. 2697.)

ESTABLISHMENT OF PROGRAM TO MONITOR AND IMPROVE AIR QUALITY IN REGIONS ALONG BORDER BETWEEN UNITED STATES AND MEXICO

Pub. L. 101–549, title VIII, §815, Nov. 15, 1990, 104 Stat. 2693, provided that:

''(a) IN GENERAL.—The Administrator of the Environmental Protection Agency (hereinafter referred to as the 'Administrator') is authorized, in cooperation with the Department of State and the affected States, to negotiate with representatives of Mexico to authorize a program to monitor and improve air quality in regions along the border between the United States and Mexico. The program established under this section shall not extend beyond July 1, 1995.

''(b) MONITORING AND REMEDIATION.—

''(1) MONITORING.—The monitoring component of the program conducted under this section shall identify and determine sources of pollutants for which national ambient air quality standards (hereinafter referred to as 'NAAQS') and other air quality goals have been established in regions along the border between the United States and Mexico. Any such monitoring component of the program shall include, but not be limited to, the collection of meteorological data, the measurement of air quality, the compilation of an emissions inventory, and shall be sufficient to the extent necessary to successfully support the use of a state-of-the-art mathematical air modeling analysis. Any such monitoring component of the program shall collect and produce data projecting the level of emission reductions necessary in both Mexico and the United States to bring about attainment of both primary and secondary NAAQS, and other air quality goals, in regions along the border in the United States. Any such monitoring component of the program shall include to the extent possible, data from monitoring programs undertaken by other parties.

''(2) REMEDIATION.—The Administrator is authorized to negotiate with appropriate representatives of Mexico to develop joint remediation measures to reduce the level of airborne pollutants to achieve and maintain primary and secondary NAAQS, and other air quality goals, in regions along the border between the United States and Mexico. Such joint remediation measures may include, but not be limited to measures included in the Environmental Protection Agency's Control Techniques and Control Technology documents. Any such remediation program shall also identify those control measures implementation of which in Mexico would be expedited by the use of material and financial assistance of the United States.

''(c) ANNUAL REPORTS.—The Administrator shall, each year the program authorized in this section is in operation, report to Congress on the progress of the program in bringing nonattainment areas along the border of the United States into attainment with primary and secondary NAAQS. The report issued by the Administrator under this paragraph shall include recommendations on funding mechanisms to assist in implementation of monitoring and remediation efforts.

''(d) FUNDING AND PERSONNEL.—The Administrator may, where appropriate, make available, subject to the appropriations, such funds, personnel, and equipment as may be necessary to implement the provisions of this section. In those cases where direct financial assistance of the United States is provided to implement monitoring and remediation programs in Mexico, the Administrator shall develop grant agreements with appropriate representatives of Mexico to assure the accuracy and completeness of monitoring data and the performance of remediation measures which are financed by the United States. With respect to any control measures within Mexico funded by the United States, the Administrator shall, to the maximum extent practicable, utilize resources of Mexico where such utilization would reduce costs to the United States. Such funding agreements shall include authorization for the Administrator to—

''(1) review and agree to plans for monitoring and remediation;

''(2) inspect premises, equipment and records to insure compliance with the agreements established under and the purposes set forth in this section; and

''(3) where necessary, develop grant agreements with affected States to carry out the provisions of this section.''

SUBPART 2—ADDITIONAL PROVISIONS FOR OZONE NONATTAINMENT AREAS

§ 7511. Classifications and attainment dates

(a) Classification and attainment dates for 1989 nonattainment areas

(1) Each area designated nonattainment for ozone pursuant to section 7407(d) of this title shall be classified at the time of such designation, under table 1, by operation of law, as a Marginal Area, a Moderate Area, a Serious Area, a Severe Area, or an Extreme Area based on the design value for the area. The design value shall be calculated according to the interpretation methodology issued by the Administrator most recently before November 15, 1990. For each area classified under this subsection, the primary standard attainment date for ozone shall be as expeditiously as practicable but not later than the date provided in table 1.

TABLE 1

Area class	Design value*	Primary standard attainment date**
Marginal ..	0.121 up to 0.138 ...	3 years after November 15, 1990
Moderate ..	0.138 up to 0.160 ...	6 years after November 15, 1990
Serious	0.160 up to 0.180 ...	9 years after November 15, 1990
Severe	0.180 up to 0.280 ...	15 years after November 15, 1990
Extreme ...	0.280 and above ...	20 years after November 15, 1990

*The design value is measured in parts per million (ppm).

**The primary standard attainment date is measured from November 15, 1990.

(2) Notwithstanding table 1, in the case of a severe area with a 1988 ozone design value between 0.190 and 0.280 ppm, the attainment date shall be 17 years (in lieu of 15 years) after November 15, 1990.

(3) At the time of publication of the notice under section 7407(d)(4) of this title (relating to area designations) for each ozone nonattainment area, the Administrator shall publish a notice announcing the classification of such ozone non-

attainment area. The provisions of section 7502(a)(1)(B) of this title (relating to lack of notice and comment and judicial review) shall apply to such classification.

(4) If an area classified under paragraph (1) (Table 1) would have been classified in another category if the design value in the area were 5 percent greater or 5 percent less than the level on which such classification was based, the Administrator may, in the Administrator's discretion, within 90 days after the initial classification, by the procedure required under paragraph (3), adjust the classification to place the area in such other category. In making such adjustment, the Administrator may consider the number of exceedances of the national primary ambient air quality standard for ozone in the area, the level of pollution transport between the area and other affected areas, including both intrastate and interstate transport, and the mix of sources and air pollutants in the area.

(5) Upon application by any State, the Administrator may extend for 1 additional year (hereinafter referred to as the ''Extension Year'') the date specified in table 1 of paragraph (1) of this subsection if—

(A) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

(B) no more than 1 exceedance of the national ambient air quality standard level for ozone has occurred in the area in the year preceding the Extension Year.

No more than 2 one-year extensions may be issued under this paragraph for a single nonattainment area.

(b) New designations and reclassifications

(1) New designations to nonattainment

Any area that is designated attainment or unclassifiable for ozone under section 7407(d)(4) of this title, and that is subsequently redesignated to nonattainment for ozone under section 7407(d)(3) of this title, shall, at the time of the redesignation, be classified by operation of law in accordance with table 1 under subsection (a). Upon its classification, the area shall be subject to the same requirements under section 7410 of this title, subpart 1 of this part, and this subpart that would have applied had the area been so classified at the time of the notice under subsection (a)(3), except that any absolute, fixed date applicable in connection with any such requirement is extended by operation of law by a period equal to the length of time between November 15, 1990, and the date the area is classified under this paragraph.

(2) Reclassification upon failure to attain

(A) Within 6 months following the applicable attainment date (including any extension thereof) for an ozone nonattainment area, the Administrator shall determine, based on the area's design value (as of the attainment date), whether the area attained the standard by that date. Except for any Severe or Extreme area, any area that the Administrator finds has not attained the standard by that date shall be reclassified by operation of law in accordance with table 1 of subsection (a) to the higher of—

(i) the next higher classification for the area, or

(ii) the classification applicable to the area's design value as determined at the time of the notice required under subparagraph (B).

No area shall be reclassified as Extreme under clause (ii).

(B) The Administrator shall publish a notice in the Federal Register, no later than 6 months following the attainment date, identifying each area that the Administrator has determined under subparagraph (A) as having failed to attain and identifying the reclassification, if any, described under subparagraph (A).

(3) Voluntary reclassification

The Administrator shall grant the request of any State to reclassify a nonattainment area in that State in accordance with table 1 of subsection (a) to a higher classification. The Administrator shall publish a notice in the Federal Register of any such request and of action by the Administrator granting the request.

(4) Failure of Severe Areas to attain standard

(A) If any Severe Area fails to achieve the national primary ambient air quality standard for ozone by the applicable attainment date (including any extension thereof), the fee provisions under section 7511d of this title shall apply within the area, the percent reduction requirements of section 7511a(c)(2)(B) and (C) of this title (relating to reasonable further progress demonstration and NO_x control) shall continue to apply to the area, and the State shall demonstrate that such percent reduction has been achieved in each 3-year interval after such failure until the standard is attained. Any failure to make such a demonstration shall be subject to the sanctions provided under this part.

(B) In addition to the requirements of subparagraph (A), if the ozone design value for a Severe Area referred to in subparagraph (A) is above 0.140 ppm for the year of the applicable attainment date, or if the area has failed to achieve its most recent milestone under section 7511a(g) of this title, the new source review requirements applicable under this subpart in Extreme Areas shall apply in the area and the term[1] ''major source'' and ''major stationary source'' shall have the same meaning as in Extreme Areas.

(C) In addition to the requirements of subparagraph (A) for those areas referred to in subparagraph (A) and not covered by subparagraph (B), the provisions referred to in subparagraph (B) shall apply after 3 years from the applicable attainment date unless the area has attained the standard by the end of such 3-year period.

(D) If, after November 15, 1990, the Administrator modifies the method of determining compliance with the national primary ambi-

[1] So in original. Probably should be ''terms''.

ent air quality standard, a design value or other indicator comparable to 0.140 in terms of its relationship to the standard shall be used in lieu of 0.140 for purposes of applying the provisions of subparagraphs (B) and (C).

(c) References to terms

(1) Any reference in this subpart to a ''Marginal Area'', a ''Moderate Area'', a ''Serious Area'', a ''Severe Area'', or an ''Extreme Area'' shall be considered a reference to a Marginal Area, a Moderate Area, a Serious Area, a Severe Area, or an Extreme Area as respectively classified under this section.

(2) Any reference in this subpart to ''next higher classification'' or comparable terms shall be considered a reference to the classification related to the next higher set of design values in table 1.

(July 14, 1955, ch. 360, title I, §181, as added Pub. L. 101–549, title I, §103, Nov. 15, 1990, 104 Stat. 2423.)

EXEMPTIONS FOR STRIPPER WELLS

Pub. L. 101–549, title VIII, §819, Nov. 15, 1990, 104 Stat. 2698, provided that: ''Notwithstanding any other provision of law, the amendments to the Clean Air Act made by section 103 of the Clean Air Act Amendments of 1990 [enacting this section and sections 7511a to 7511f of this title] (relating to additional provisions for ozone nonattainment areas), by section 104 of such amendments [enacting sections 7512 and 7512a of this title] (relating to additional provisions for carbon monoxide nonattainment areas), by section 105 of such amendments [enacting sections 7513 to 7513b of this title and amending section 7476 of this title] (relating to additional provisions for PM–10 nonattainment areas), and by section 106 of such amendments [enacting sections 7514 and 7514a of this title] (relating to additional provisions for areas designated as nonattainment for sulfur oxides, nitrogen dioxide, and lead) shall not apply with respect to the production of and equipment used in the exploration, production, development, storage or processing of—

''(1) oil from a stripper well property, within the meaning of the June 1979 energy regulations (within the meaning of section 4996(b)(7) of the Internal Revenue Code of 1986 [26 U.S.C. 4996(b)(7)], as in effect before the repeal of such section); and

''(2) stripper well natural gas, as defined in section 108(b) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3318(b)).[,]

except to the extent that provisions of such amendments cover areas designated as Serious pursuant to part D of title I of the Clean Air Act [this part] and having a population of 350,000 or more, or areas designated as Severe or Extreme pursuant to such part D.''

§ 7511a. Plan submissions and requirements

(a) Marginal Areas

Each State in which all or part of a Marginal Area is located shall, with respect to the Marginal Area (or portion thereof, to the extent specified in this subsection), submit to the Administrator the State implementation plan revisions (including the plan items) described under this subsection except to the extent the State has made such submissions as of November 15, 1990.

(1) Inventory

Within 2 years after November 15, 1990, the State shall submit a comprehensive, accurate, current inventory of actual emissions from all sources, as described in section 7502(c)(3) of this title, in accordance with guidance provided by the Administrator.

(2) Corrections to the State implementation plan

Within the periods prescribed in this paragraph, the State shall submit a revision to the State implementation plan that meets the following requirements—

(A) Reasonably available control technology corrections

For any Marginal Area (or, within the Administrator's discretion, portion thereof) the State shall submit, within 6 months of the date of classification under section 7511(a) of this title, a revision that includes such provisions to correct requirements in (or add requirements to) the plan concerning reasonably available control technology as were required under section 7502(b) of this title (as in effect immediately before November 15, 1990), as interpreted in guidance issued by the Administrator under section 7408 of this title before November 15, 1990.

(B) Savings clause for vehicle inspection and maintenance

(i) For any Marginal Area (or, within the Administrator's discretion, portion thereof), the plan for which already includes, or was required by section 7502(b)(11)(B) of this title (as in effect immediately before November 15, 1990) to have included, a specific schedule for implementation of a vehicle emission control inspection and maintenance program, the State shall submit, immediately after November 15, 1990, a revision that includes any provisions necessary to provide for a vehicle inspection and maintenance program of no less stringency than that of either the program defined in House Report Numbered 95–294, 95th Congress, 1st Session, 281–291 (1977) as interpreted in guidance of the Administrator issued pursuant to section 7502(b)(11)(B) of this title (as in effect immediately before November 15, 1990) or the program already included in the plan, whichever is more stringent.

(ii) Within 12 months after November 15, 1990, the Administrator shall review, revise, update, and republish in the Federal Register the guidance for the States for motor vehicle inspection and maintenance programs required by this chapter, taking into consideration the Administrator's investigations and audits of such program. The guidance shall, at a minimum, cover the frequency of inspections, the types of vehicles to be inspected (which shall include leased vehicles that are registered in the nonattainment area), vehicle maintenance by owners and operators, audits by the State, the test method and measures, including whether centralized or decentralized, inspection methods and procedures, quality of inspection, components covered, assurance that a vehicle subject to a recall notice from a manufacturer has complied with that notice, and effective implementation and enforcement, including ensuring that any re-

testing of a vehicle after a failure shall include proof of corrective action and providing for denial of vehicle registration in the case of tampering or misfueling. The guidance which shall be incorporated in the applicable State implementation plans by the States shall provide the States with continued reasonable flexibility to fashion effective, reasonable, and fair programs for the affected consumer. No later than 2 years after the Administrator promulgates regulations under section 7521(m)(3) of this title (relating to emission control diagnostics), the State shall submit a revision to such program to meet any requirements that the Administrator may prescribe under that section.

(C) Permit programs

Within 2 years after November 15, 1990, the State shall submit a revision that includes each of the following:

(i) Provisions to require permits, in accordance with sections 7502(c)(5) and 7503 of this title, for the construction and operation of each new or modified major stationary source (with respect to ozone) to be located in the area.

(ii) Provisions to correct requirements in (or add requirements to) the plan concerning permit programs as were required under section 7502(b)(6) of this title (as in effect immediately before November 15, 1990), as interpreted in regulations of the Administrator promulgated as of November 15, 1990.

(3) Periodic inventory

(A) General requirement

No later than the end of each 3-year period after submission of the inventory under paragraph (1) until the area is redesignated to attainment, the State shall submit a revised inventory meeting the requirements of subsection (a)(1).

(B) Emissions statements

(i) Within 2 years after November 15, 1990, the State shall submit a revision to the State implementation plan to require that the owner or operator of each stationary source of oxides of nitrogen or volatile organic compounds provide the State with a statement, in such form as the Administrator may prescribe (or accept an equivalent alternative developed by the State), for classes or categories of sources, showing the actual emissions of oxides of nitrogen and volatile organic compounds from that source. The first such statement shall be submitted within 3 years after November 15, 1990. Subsequent statements shall be submitted at least every year thereafter. The statement shall contain a certification that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement.

(ii) The State may waive the application of clause (i) to any class or category of stationary sources which emit less than 25 tons per year of volatile organic compounds or oxides of nitrogen if the State, in its submissions under subparagraphs[1] (1) or (3)(A), provides an inventory of emissions from such class or category of sources, based on the use of the emission factors established by the Administrator or other methods acceptable to the Administrator.

(4) General offset requirement

For purposes of satisfying the emission offset requirements of this part, the ratio of total emission reductions of volatile organic compounds to total increased emissions of such air pollutant shall be at least 1.1 to 1.

The Administrator may, in the Administrator's discretion, require States to submit a schedule for submitting any of the revisions or other items required under this subsection. The requirements of this subsection shall apply in lieu of any requirement that the State submit a demonstration that the applicable implementation plan provides for attainment of the ozone standard by the applicable attainment date in any Marginal Area. Section 7502(c)(9) of this title (relating to contingency measures) shall not apply to Marginal Areas.

(b) Moderate Areas

Each State in which all or part of a Moderate Area is located shall, with respect to the Moderate Area, make the submissions described under subsection (a) of this section (relating to Marginal Areas), and shall also submit the revisions to the applicable implementation plan described under this subsection.

(1) Plan provisions for reasonable further progress

(A) General rule

(i) By no later than 3 years after November 15, 1990, the State shall submit a revision to the applicable implementation plan to provide for volatile organic compound emission reductions, within 6 years after November 15, 1990, of at least 15 percent from baseline emissions, accounting for any growth in emissions after 1990. Such plan shall provide for such specific annual reductions in emissions of volatile organic compounds and oxides of nitrogen as necessary to attain the national primary ambient air quality standard for ozone by the attainment date applicable under this chapter. This subparagraph shall not apply in the case of oxides of nitrogen for those areas for which the Administrator determines (when the Administrator approves the plan or plan revision) that additional reductions of oxides of nitrogen would not contribute to attainment.

(ii) A percentage less than 15 percent may be used for purposes of clause (i) in the case of any State which demonstrates to the satisfaction of the Administrator that—

(I) new source review provisions are applicable in the nonattainment areas in the same manner and to the same extent as required under subsection (e) in the case of Extreme Areas (with the exception that, in applying such provisions, the terms ''major source'' and ''major stationary

[1] So in original. Probably should be ''subparagraph''.

source'' shall include (in addition to the sources described in section 7602 of this title) any stationary source or group of sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 5 tons per year of volatile organic compounds);

(II) reasonably available control technology is required for all existing major sources (as defined in subclause (I)); and

(III) the plan reflecting a lesser percentage than 15 percent includes all measures that can feasibly be implemented in the area, in light of technological achievability.

To qualify for a lesser percentage under this clause, a State must demonstrate to the satisfaction of the Administrator that the plan for the area includes the measures that are achieved in practice by sources in the same source category in nonattainment areas of the next higher category.

(B) Baseline emissions

For purposes of subparagraph (A), the term ''baseline emissions'' means the total amount of actual VOC or NO_x emissions from all anthropogenic sources in the area during the calendar year 1990, excluding emissions that would be eliminated under the regulations described in clauses (i) and (ii) of subparagraph (D).

(C) General rule for creditability of reductions

Except as provided under subparagraph (D), emissions reductions are creditable toward the 15 percent required under subparagraph (A) to the extent they have actually occurred, as of 6 years after November 15, 1990, from the implementation of measures required under the applicable implementation plan, rules promulgated by the Administrator, or a permit under subchapter V.

(D) Limits on creditability of reductions

Emission reductions from the following measures are not creditable toward the 15 percent reductions required under subparagraph (A):

(i) Any measure relating to motor vehicle exhaust or evaporative emissions promulgated by the Administrator by January 1, 1990.

(ii) Regulations concerning Reid Vapor Pressure promulgated by the Administrator by November 15, 1990, or required to be promulgated under section 7545(h) of this title.

(iii) Measures required under subsection (a)(2)(A) (concerning corrections to implementation plans prescribed under guidance by the Administrator).

(iv) Measures required under subsection (a)(2)(B) to be submitted immediately after November 15, 1990 (concerning corrections to motor vehicle inspection and maintenance programs).

(2) Reasonably available control technology

The State shall submit a revision to the applicable implementation plan to include provisions to require the implementation of reasonably available control technology under section 7502(c)(1) of this title with respect to each of the following:

(A) Each category of VOC sources in the area covered by a CTG document issued by the Administrator between November 15, 1990, and the date of attainment.

(B) All VOC sources in the area covered by any CTG issued before November 15, 1990.

(C) All other major stationary sources of VOCs that are located in the area.

Each revision described in subparagraph (A) shall be submitted within the period set forth by the Administrator in issuing the relevant CTG document. The revisions with respect to sources described in subparagraphs (B) and (C) shall be submitted by 2 years after November 15, 1990, and shall provide for the implementation of the required measures as expeditiously as practicable but no later than May 31, 1995.

(3) Gasoline vapor recovery

(A) General rule

Not later than 2 years after November 15, 1990, the State shall submit a revision to the applicable implementation plan to require all owners or operators of gasoline dispensing systems to install and operate, by the date prescribed under subparagraph (B), a system for gasoline vapor recovery of emissions from the fueling of motor vehicles. The Administrator shall issue guidance as appropriate as to the effectiveness of such system. This subparagraph shall apply only to facilities which sell more than 10,000 gallons of gasoline per month (50,000 gallons per month in the case of an independent small business marketer of gasoline as defined in section 7625–1[2] of this title).

(B) Effective date

The date required under subparagraph (A) shall be—

(i) 6 months after the adoption date, in the case of gasoline dispensing facilities for which construction commenced after November 15, 1990;

(ii) one year after the adoption date, in the case of gasoline dispensing facilities which dispense at least 100,000 gallons of gasoline per month, based on average monthly sales for the 2-year period before the adoption date; or

(iii) 2 years after the adoption date, in the case of all other gasoline dispensing facilities.

Any gasoline dispensing facility described under both clause (i) and clause (ii) shall meet the requirements of clause (i).

(C) Reference to terms

For purposes of this paragraph, any reference to the term ''adoption date'' shall be considered a reference to the date of adoption by the State of requirements for the installation and operation of a system for gasoline vapor recovery of emissions from the fueling of motor vehicles.

[2] So in original. Probably should be section ''7625''.

(4) Motor vehicle inspection and maintenance

For all Moderate Areas, the State shall submit, immediately after November 15, 1990, a revision to the applicable implementation plan that includes provisions necessary to provide for a vehicle inspection and maintenance program as described in subsection (a)(2)(B) (without regard to whether or not the area was required by section 7502(b)(11)(B) of this title (as in effect immediately before November 15, 1990) to have included a specific schedule for implementation of such a program).

(5) General offset requirement

For purposes of satisfying the emission offset requirements of this part, the ratio of total emission reductions of volatile organic compounds to total increase[3] emissions of such air pollutant shall be at least 1.15 to 1.

(c) Serious Areas

Except as otherwise specified in paragraph (4), each State in which all or part of a Serious Area is located shall, with respect to the Serious Area (or portion thereof, to the extent specified in this subsection), make the submissions described under subsection (b) (relating to Moderate Areas), and shall also submit the revisions to the applicable implementation plan (including the plan items) described under this subsection. For any Serious Area, the terms ''major source'' and ''major stationary source'' include (in addition to the sources described in section 7602 of this title) any stationary source or group of sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 50 tons per year of volatile organic compounds.

(1) Enhanced monitoring

In order to obtain more comprehensive and representative data on ozone air pollution, not later than 18 months after November 15, 1990, the Administrator shall promulgate rules, after notice and public comment, for enhanced monitoring of ozone, oxides of nitrogen, and volatile organic compounds. The rules shall, among other things, cover the location and maintenance of monitors. Immediately following the promulgation of rules by the Administrator relating to enhanced monitoring, the State shall commence such actions as may be necessary to adopt and implement a program based on such rules, to improve monitoring for ambient concentrations of ozone, oxides of nitrogen and volatile organic compounds and to improve monitoring of emissions of oxides of nitrogen and volatile organic compounds. Each State implementation plan for the area shall contain measures to improve the ambient monitoring of such air pollutants.

(2) Attainment and reasonable further progress demonstrations

Within 4 years after November 15, 1990, the State shall submit a revision to the applicable implementation plan that includes each of the following:

(A) Attainment demonstration

A demonstration that the plan, as revised, will provide for attainment of the ozone national ambient air quality standard by the applicable attainment date. This attainment demonstration must be based on photochemical grid modeling or any other analytical method determined by the Administrator, in the Administrator's discretion, to be at least as effective.

(B) Reasonable further progress demonstration

A demonstration that the plan, as revised, will result in VOC emissions reductions from the baseline emissions described in subsection (b)(1)(B) equal to the following amount averaged over each consecutive 3-year period beginning 6 years after November 15, 1990, until the attainment date:

(i) at least 3 percent of baseline emissions each year; or

(ii) an amount less than 3 percent of such baseline emissions each year, if the State demonstrates to the satisfaction of the Administrator that the plan reflecting such lesser amount includes all measures that can feasibly be implemented in the area, in light of technological achievability.

To lessen the 3 percent requirement under clause (ii), a State must demonstrate to the satisfaction of the Administrator that the plan for the area includes the measures that are achieved in practice by sources in the same source category in nonattainment areas of the next higher classification. Any determination to lessen the 3 percent requirement shall be reviewed at each milestone under subsection (g) and revised to reflect such new measures (if any) achieved in practice by sources in the same category in any State, allowing a reasonable time to implement such measures. The emission reductions described in this subparagraph shall be calculated in accordance with subsection (b)(1)(C) and (D) (concerning creditability of reductions). The reductions creditable for the period beginning 6 years after November 15, 1990, shall include reductions that occurred before such period, computed in accordance with subsection (b)(1), that exceed the 15-percent amount of reductions required under subsection (b)(1)(A).

(C) NO_x control

The revision may contain, in lieu of the demonstration required under subparagraph (B), a demonstration to the satisfaction of the Administrator that the applicable implementation plan, as revised, provides for reductions of emissions of VOC's and oxides of nitrogen (calculated according to the creditability provisions of subsection (b)(1)(C) and (D)), that would result in a reduction in ozone concentrations at least equivalent to that which would result from the amount of VOC emission reductions required under subparagraph (B). Within 1 year after November 15, 1990, the Administrator shall issue guidance concerning the conditions under which NO_x control may be substituted for VOC control or may be combined with VOC control in order to maximize the reduction in ozone air pollution. In accord with such guidance,

[3] So in original. Probably should be ''increased''.

a lesser percentage of VOCs may be accepted as an adequate demonstration for purposes of this subsection.

(3) Enhanced vehicle inspection and maintenance program

(A) Requirement for submission

Within 2 years after November 15, 1990, the State shall submit a revision to the applicable implementation plan to provide for an enhanced program to reduce hydrocarbon emissions and NO_x emissions from in-use motor vehicles registered in each urbanized area (in the nonattainment area), as defined by the Bureau of the Census, with a 1980 population of 200,000 or more.

(B) Effective date of State programs; guidance

The State program required under subparagraph (A) shall take effect no later than 2 years from November 15, 1990, and shall comply in all respects with guidance published in the Federal Register (and from time to time revised) by the Administrator for enhanced vehicle inspection and maintenance programs. Such guidance shall include—

(i) a performance standard achievable by a program combining emission testing, including on-road emission testing, with inspection to detect tampering with emission control devices and misfueling for all light-duty vehicles and all light-duty trucks subject to standards under section 7521 of this title; and

(ii) program administration features necessary to reasonably assure that adequate management resources, tools, and practices are in place to attain and maintain the performance standard.

Compliance with the performance standard under clause (i) shall be determined using a method to be established by the Administrator.

(C) State program

The State program required under subparagraph (A) shall include, at a minimum, each of the following elements—

(i) Computerized emission analyzers, including on-road testing devices.

(ii) No waivers for vehicles and parts covered by the emission control performance warranty as provided for in section 7541(b) of this title unless a warranty remedy has been denied in writing, or for tampering-related repairs.

(iii) In view of the air quality purpose of the program, if, for any vehicle, waivers are permitted for emissions-related repairs not covered by warranty, an expenditure to qualify for the waiver of an amount of $450 or more for such repairs (adjusted annually as determined by the Administrator on the basis of the Consumer Price Index in the same manner as provided in subchapter V).

(iv) Enforcement through denial of vehicle registration (except for any program in operation before November 15, 1990, whose enforcement mechanism is demonstrated to the Administrator to be more effective than the applicable vehicle registration program in assuring that noncomplying vehicles are not operated on public roads).

(v) Annual emission testing and necessary adjustment, repair, and maintenance, unless the State demonstrates to the satisfaction of the Administrator that a biennial inspection, in combination with other features of the program which exceed the requirements of this chapter, will result in emission reductions which equal or exceed the reductions which can be obtained through such annual inspections.

(vi) Operation of the program on a centralized basis, unless the State demonstrates to the satisfaction of the Administrator that a decentralized program will be equally effective. An electronically connected testing system, a licensing system, or other measures (or any combination thereof) may be considered, in accordance with criteria established by the Administrator, as equally effective for such purposes.

(vii) Inspection of emission control diagnostic systems and the maintenance or repair of malfunctions or system deterioration identified by or affecting such diagnostics systems.

Each State shall biennially prepare a report to the Administrator which assesses the emission reductions achieved by the program required under this paragraph based on data collected during inspection and repair of vehicles. The methods used to assess the emission reductions shall be those established by the Administrator.

(4) Clean-fuel vehicle programs

(A) Except to the extent that substitute provisions have been approved by the Administrator under subparagraph (B), the State shall submit to the Administrator, within 42 months of November 15, 1990, a revision to the applicable implementation plan for each area described under part C of subchapter II to include such measures as may be necessary to ensure the effectiveness of the applicable provisions of the clean-fuel vehicle program prescribed under part C of subchapter II, including all measures necessary to make the use of clean alternative fuels in clean-fuel vehicles (as defined in part C of subchapter II) economic from the standpoint of vehicle owners. Such a revision shall also be submitted for each area that opts into the clean fuel-vehicle program as provided in part C of subchapter II.

(B) The Administrator shall approve, as a substitute for all or a portion of the clean-fuel vehicle program prescribed under part C of subchapter II, any revision to the relevant applicable implementation plan that in the Administrator's judgment will achieve long-term reductions in ozone-producing and toxic air emissions equal to those achieved under part C of subchapter II, or the percentage thereof attributable to the portion of the clean-fuel vehicle program for which the revision is to substitute. The Administrator may approve such

revision only if it consists exclusively of provisions other than those required under this chapter for the area. Any State seeking approval of such revision must submit the revision to the Administrator within 24 months of November 15, 1990. The Administrator shall approve or disapprove any such revision within 30 months of November 15, 1990. The Administrator shall publish the revision submitted by a State in the Federal Register upon receipt. Such notice shall constitute a notice of proposed rulemaking on whether or not to approve such revision and shall be deemed to comply with the requirements concerning notices of proposed rulemaking contained in sections 553 through 557 of title 5 (related to notice and comment). Where the Administrator approves such revision for any area, the State need not submit the revision required by subparagraph (A) for the area with respect to the portions of the Federal clean-fuel vehicle program for which the Administrator has approved the revision as a substitute.

(C) If the Administrator determines, under section 7509 of this title, that the State has failed to submit any portion of the program required under subparagraph (A), then, in addition to any sanctions available under section 7509 of this title, the State may not receive credit, in any demonstration of attainment or reasonable further progress for the area, for any emission reductions from implementation of the corresponding aspects of the Federal clean-fuel vehicle requirements established in part C of subchapter II.

(5) Transportation control

(A)[4] Beginning 6 years after November 15, 1990, and each third year thereafter, the State shall submit a demonstration as to whether current aggregate vehicle mileage, aggregate vehicle emissions, congestion levels, and other relevant parameters are consistent with those used for the area's demonstration of attainment. Where such parameters and emissions levels exceed the levels projected for purposes of the area's attainment demonstration, the State shall within 18 months develop and submit a revision of the applicable implementation plan that includes a transportation control measures program consisting of measures from, but not limited to, section 7408(f) of this title that will reduce emissions to levels that are consistent with emission levels projected in such demonstration. In considering such measures, the State should ensure adequate access to downtown, other commercial, and residential areas and should avoid measures that increase or relocate emissions and congestion rather than reduce them. Such revision shall be developed in accordance with guidance issued by the Administrator pursuant to section 7408(e) of this title and with the requirements of section 7504(b) of this title and shall include implementation and funding schedules that achieve expeditious emissions reductions in accordance with implementation plan projections.

[4] So in original. No subpar. (B) has been enacted.

(6) De minimis rule

The new source review provisions under this part shall ensure that increased emissions of volatile organic compounds resulting from any physical change in, or change in the method of operation of, a stationary source located in the area shall not be considered de minimis for purposes of determining the applicability of the permit requirements established by this chapter unless the increase in net emissions of such air pollutant from such source does not exceed 25 tons when aggregated with all other net increases in emissions from the source over any period of 5 consecutive calendar years which includes the calendar year in which such increase occurred.

(7) Special rule for modifications of sources emitting less than 100 tons

In the case of any major stationary source of volatile organic compounds located in the area (other than a source which emits or has the potential to emit 100 tons or more of volatile organic compounds per year), whenever any change (as described in section 7411(a)(4) of this title) at that source results in any increase (other than a de minimis increase) in emissions of volatile organic compounds from any discrete operation, unit, or other pollutant emitting activity at the source, such increase shall be considered a modification for purposes of section 7502(c)(5) of this title and section 7503(a) of this title, except that such increase shall not be considered a modification for such purposes if the owner or operator of the source elects to offset the increase by a greater reduction in emissions of volatile organic compounds concerned from other operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1. If the owner or operator does not make such election, such change shall be considered a modification for such purposes, but in applying section 7503(a)(2) of this title in the case of any such modification, the best available control technology (BACT), as defined in section 7479 of this title, shall be substituted for the lowest achievable emission rate (LAER). The Administrator shall establish and publish policies and procedures for implementing the provisions of this paragraph.

(8) Special rule for modifications of sources emitting 100 tons or more

In the case of any major stationary source of volatile organic compounds located in the area which emits or has the potential to emit 100 tons or more of volatile organic compounds per year, whenever any change (as described in section 7411(a)(4) of this title) at that source results in any increase (other than a de minimis increase) in emissions of volatile organic compounds from any discrete operation, unit, or other pollutant emitting activity at the source, such increase shall be considered a modification for purposes of section 7502(c)(5) of this title and section 7503(a) of this title, except that if the owner or operator of the source elects to offset the increase by a greater reduction in emissions of volatile organic compounds from other operations, units, or

activities within the source at an internal offset ratio of at least 1.3 to 1, the requirements of section 7503(a)(2) of this title (concerning the lowest achievable emission rate (LAER)) shall not apply.

(9) Contingency provisions

In addition to the contingency provisions required under section 7502(c)(9) of this title, the plan revision shall provide for the implementation of specific measures to be undertaken if the area fails to meet any applicable milestone. Such measures shall be included in the plan revision as contingency measures to take effect without further action by the State or the Administrator upon a failure by the State to meet the applicable milestone.

(10) General offset requirement

For purposes of satisfying the emission offset requirements of this part, the ratio of total emission reductions of volatile organic compounds to total increase emissions of such air pollutant shall be at least 1.2 to 1.

Any reference to ''attainment date'' in subsection (b), which is incorporated by reference into this subsection, shall refer to the attainment date for serious areas.

(d) Severe Areas

Each State in which all or part of a Severe Area is located shall, with respect to the Severe Area, make the submissions described under subsection (c) (relating to Serious Areas), and shall also submit the revisions to the applicable implementation plan (including the plan items) described under this subsection. For any Severe Area, the terms ''major source'' and ''major stationary source'' include (in addition to the sources described in section 7602 of this title) any stationary source or group of sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 25 tons per year of volatile organic compounds.

(1) Vehicle miles traveled

(A) Within 2 years after November 15, 1990, the State shall submit a revision that identifies and adopts specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles traveled or numbers of vehicle trips in such area and to attain reduction in motor vehicle emissions as necessary, in combination with other emission reduction requirements of this subpart, to comply with the requirements of subsection[5] (b)(2)(B) and (c)(2)(B) (pertaining to periodic emissions reduction requirements). The State shall consider measures specified in section 7408(f) of this title, and choose from among and implement such measures as necessary to demonstrate attainment with the national ambient air quality standards; in considering such measures, the State should ensure adequate access to downtown, other commercial, and residential areas and should avoid measures that increase or relocate emissions and congestion rather than reduce them.

(B) The State may also, in its discretion, submit a revision at any time requiring employers in such area to implement programs to reduce work-related vehicle trips and miles travelled by employees. Such revision shall be developed in accordance with guidance issued by the Administrator pursuant to section 7408(f) of this title and may require that employers in such area increase average passenger occupancy per vehicle in commuting trips between home and the workplace during peak travel periods. The guidance of the Administrator may specify average vehicle occupancy rates which vary for locations within a nonattainment area (suburban, center city, business district) or among nonattainment areas reflecting existing occupancy rates and the availability of high occupancy modes. Any State required to submit a revision under this subparagraph (as in effect before December 23, 1995) containing provisions requiring employers to reduce work-related vehicle trips and miles travelled by employees may, in accordance with State law, remove such provisions from the implementation plan, or withdraw its submission, if the State notifies the Administrator, in writing, that the State has undertaken, or will undertake, one or more alternative methods that will achieve emission reductions equivalent to those to be achieved by the removed or withdrawn provisions.

(2) Offset requirement

For purposes of satisfying the offset requirements pursuant to this part, the ratio of total emission reductions of VOCs to total increased emissions of such air pollutant shall be at least 1.3 to 1, except that if the State plan requires all existing major sources in the nonattainment area to use best available control technology (as defined in section 7479(3) of this title) for the control of volatile organic compounds, the ratio shall be at least 1.2 to 1.

(3) Enforcement under section 7511d

By December 31, 2000, the State shall submit a plan revision which includes the provisions required under section 7511d of this title.

Any reference to the term ''attainment date'' in subsection (b) or (c), which is incorporated by reference into this subsection (d), shall refer to the attainment date for Severe Areas.

(e) Extreme Areas

Each State in which all or part of an Extreme Area is located shall, with respect to the Extreme Area, make the submissions described under subsection (d) (relating to Severe Areas), and shall also submit the revisions to the applicable implementation plan (including the plan items) described under this subsection. The provisions of clause (ii) of subsection (c)(2)(B) (relating to reductions of less than 3 percent), the provisions of paragaphs[6] (6), (7) and (8) of subsection (c) (relating to de minimus[7] rule and modification of sources), and the provisions of clause (ii) of subsection (b)(1)(A) (relating to re-

[5] So in original. Probably should be ''subsections''.

[6] So in original. Probably should be ''paragraphs''.

[7] So in original. Probably should be ''de minimis''.

ductions of less than 15 percent) shall not apply in the case of an Extreme Area. For any Extreme Area, the terms ''major source'' and ''major stationary source'' includes[8] (in addition to the sources described in section 7602 of this title) any stationary source or group of sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 10 tons per year of volatile organic compounds.

(1) Offset requirement

For purposes of satisfying the offset requirements pursuant to this part, the ratio of total emission reductions of VOCs to total increased emissions of such air pollutant shall be at least 1.5 to 1, except that if the State plan requires all existing major sources in the nonattainment area to use best available control technology (as defined in section 7479(3) of this title) for the control of volatile organic compounds, the ratio shall be at least 1.2 to 1.

(2) Modifications

Any change (as described in section 7411(a)(4) of this title) at a major stationary source which results in any increase in emissions from any discrete operation, unit, or other pollutant emitting activity at the source shall be considered a modification for purposes of section 7502(c)(5) of this title and section 7503(a) of this title, except that for purposes of complying with the offset requirement pursuant to section 7503(a)(1) of this title, any such increase shall not be considered a modification if the owner or operator of the source elects to offset the increase by a greater reduction in emissions of the air pollutant concerned from other discrete operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1. The offset requirements of this part shall not be applicable in Extreme Areas to a modification of an existing source if such modification consists of installation of equipment required to comply with the applicable implementation plan, permit, or this chapter.

(3) Use of clean fuels or advanced control technology

For Extreme Areas, a plan revision shall be submitted within 3 years after November 15, 1990, to require, effective 8 years after November 15, 1990, that each new, modified, and existing electric utility and industrial and commercial boiler which emits more than 25 tons per year of oxides of nitrogen—

(A) burn as its primary fuel natural gas, methanol, or ethanol (or a comparably low polluting fuel), or

(B) use advanced control technology (such as catalytic control technology or other comparably effective control methods) for reduction of emissions of oxides of nitrogen.

For purposes of this subsection, the term ''primary fuel'' means the fuel which is used 90 percent or more of the operating time. This paragraph shall not apply during any natural gas supply emergency (as defined in title III of the Natural Gas Policy Act of 1978 [15 U.S.C. 3361 et seq.]).

(4) Traffic control measures during heavy traffic hours

For Extreme Areas, each implementation plan revision under this subsection may contain provisions establishing traffic control measures applicable during heavy traffic hours to reduce the use of high polluting vehicles or heavy-duty vehicles, notwithstanding any other provision of law.

(5) New technologies

The Administrator may, in accordance with section 7410 of this title, approve provisions of an implementation plan for an Extreme Area which anticipate development of new control techniques or improvement of existing control technologies, and an attainment demonstration based on such provisions, if the State demonstrates to the satisfaction of the Administrator that—

(A) such provisions are not necessary to achieve the incremental emission reductions required during the first 10 years after November 15, 1990; and

(B) the State has submitted enforceable commitments to develop and adopt contingency measures to be implemented as set forth herein if the anticipated technologies do not achieve planned reductions.

Such contingency measures shall be submitted to the Administrator no later than 3 years before proposed implementation of the plan provisions and approved or disapproved by the Administrator in accordance with section 7410 of this title. The contingency measures shall be adequate to produce emission reductions sufficient, in conjunction with other approved plan provisions, to achieve the periodic emission reductions required by subsection (b)(1) or (c)(2) and attainment by the applicable dates. If the Administrator determines that an Extreme Area has failed to achieve an emission reduction requirement set forth in subsection (b)(1) or (c)(2), and that such failure is due in whole or part to an inability to fully implement provisions approved pursuant to this subsection, the Administrator shall require the State to implement the contingency measures to the extent necessary to assure compliance with subsections (b)(1) and (c)(2).

Any reference to the term ''attainment date'' in subsection (b), (c), or (d) which is incorporated by reference into this subsection, shall refer to the attainment date for Extreme Areas.

(f) NO_x requirements

(1) The plan provisions required under this subpart for major stationary sources of volatile organic compounds shall also apply to major stationary sources (as defined in section 7602 of this title and subsections (c), (d), and (e) of this section) of oxides of nitrogen. This subsection shall not apply in the case of oxides of nitrogen for those sources for which the Administrator determines (when the Administrator approves a plan or plan revision) that net air quality benefits are greater in the absence of reductions of oxides of nitrogen from the sources concerned.

[8] So in original. Probably should be ''include''.

This subsection shall also not apply in the case of oxides of nitrogen for—

(A) nonattainment areas not within an ozone transport region under section 7511c of this title, if the Administrator determines (when the Administrator approves a plan or plan revision) that additional reductions of oxides of nitrogen would not contribute to attainment of the national ambient air quality standard for ozone in the area, or

(B) nonattainment areas within such an ozone transport region if the Administrator determines (when the Administrator approves a plan or plan revision) that additional reductions of oxides of nitrogen would not produce net ozone air quality benefits in such region.

The Administrator shall, in the Administrator's determinations, consider the study required under section 7511f of this title.

(2)(A) If the Administrator determines that excess reductions in emissions of NO_x would be achieved under paragraph (1), the Administrator may limit the application of paragraph (1) to the extent necessary to avoid achieving such excess reductions.

(B) For purposes of this paragraph, excess reductions in emissions of NO_x are emission reductions for which the Administrator determines that net air quality benefits are greater in the absence of such reductions. Alternatively, for purposes of this paragraph, excess reductions in emissions of NO_x are, for—

(i) nonattainment areas not within an ozone transport region under section 7511c of this title, emission reductions that the Administrator determines would not contribute to attainment of the national ambient air quality standard for ozone in the area, or

(ii) nonattainment areas within such ozone transport region, emission reductions that the Administrator determines would not produce net ozone air quality benefits in such region.

(3) At any time after the final report under section 7511f of this title is submitted to Congress, a person may petition the Administrator for a determination under paragraph (1) or (2) with respect to any nonattainment area or any ozone transport region under section 7511c of this title. The Administrator shall grant or deny such petition within 6 months after its filing with the Administrator.

(g) Milestones

(1) Reductions in emissions

6 years after November 15, 1990, and at intervals of every 3 years thereafter, the State shall determine whether each nonattainment area (other than an area classified as Marginal or Moderate) has achieved a reduction in emissions during the preceding intervals equivalent to the total emission reductions required to be achieved by the end of such interval pursuant to subsection (b)(1) and the corresponding requirements of subsections (c)(2)(B) and (C), (d), and (e). Such reduction shall be referred to in this section as an applicable milestone.

(2) Compliance demonstration

For each nonattainment area referred to in paragraph (1), not later than 90 days after the date on which an applicable milestone occurs (not including an attainment date on which a milestone occurs in cases where the standard has been attained), each State in which all or part of such area is located shall submit to the Administrator a demonstration that the milestone has been met. A demonstration under this paragraph shall be submitted in such form and manner, and shall contain such information and analysis, as the Administrator shall require, by rule. The Administrator shall determine whether or not a State's demonstration is adequate within 90 days after the Administrator's receipt of a demonstration which contains the information and analysis required by the Administrator.

(3) Serious and Severe Areas; State election

If a State fails to submit a demonstration under paragraph (2) for any Serious or Severe Area within the required period or if the Administrator determines that the area has not met any applicable milestone, the State shall elect, within 90 days after such failure or determination—

(A) to have the area reclassified to the next higher classification,

(B) to implement specific additional measures adequate, as determined by the Administrator, to meet the next milestone as provided in the applicable contingency plan, or

(C) to adopt an economic incentive program as described in paragraph (4).

If the State makes an election under subparagraph (B), the Administrator shall, within 90 days after the election, review such plan and shall, if the Administrator finds the contingency plan inadequate, require further measures necessary to meet such milestone. Once the State makes an election, it shall be deemed accepted by the Administrator as meeting the election requirement. If the State fails to make an election required under this paragraph within the required 90-day period or within 6 months thereafter, the area shall be reclassified to the next higher classification by operation of law at the expiration of such 6-month period. Within 12 months after the date required for the State to make an election, the State shall submit a revision of the applicable implementation plan for the area that meets the requirements of this paragraph. The Administrator shall review such plan revision and approve or disapprove the revision within 9 months after the date of its submission.

(4) Economic incentive program

(A) An economic incentive program under this paragraph shall be consistent with rules published by the Administrator and sufficient, in combination with other elements of the State plan, to achieve the next milestone. The State program may include a nondiscriminatory system, consistent with applicable law regarding interstate commerce, of State established emissions fees or a system of marketable permits, or a system of State fees on sale or manufacture of products the use of which contributes to ozone formation, or any combination of the foregoing or other similar meas-

ures. The program may also include incentives and requirements to reduce vehicle emissions and vehicle miles traveled in the area, including any of the transportation control measures identified in section 7408(f) of this title.

(B) Within 2 years after November 15, 1990, the Administrator shall publish rules for the programs to be adopted pursuant to subparagraph (A). Such rules shall include model plan provisions which may be adopted for reducing emissions from permitted stationary sources, area sources, and mobile sources. The guidelines shall require that any revenues generated by the plan provisions adopted pursuant to subparagraph (A) shall be used by the State for any of the following:

(i) Providing incentives for achieving emission reductions.

(ii) Providing assistance for the development of innovative technologies for the control of ozone air pollution and for the development of lower-polluting solvents and surface coatings. Such assistance shall not provide for the payment of more than 75 percent of either the costs of any project to develop such a technology or the costs of development of a lower-polluting solvent or surface coating.

(iii) Funding the administrative costs of State programs under this chapter. Not more than 50 percent of such revenues may be used for purposes of this clause.

(5) Extreme Areas

If a State fails to submit a demonstration under paragraph (2) for any Extreme Area within the required period, or if the Administrator determines that the area has not met any applicable milestone, the State shall, within 9 months after such failure or determination, submit a plan revision to implement an economic incentive program which meets the requirements of paragraph (4). The Administrator shall review such plan revision and approve or disapprove the revision within 9 months after the date of its submission.

(h) Rural transport areas

(1) Notwithstanding any other provision of section 7511 of this title or this section, a State containing an ozone nonattainment area that does not include, and is not adjacent to, any part of a Metropolitan Statistical Area or, where one exists, a Consolidated Metropolitan Statistical Area (as defined by the United States Bureau of the Census), which area is treated by the Administrator, in the Administrator's discretion, as a rural transport area within the meaning of paragraph (2), shall be treated by operation of law as satisfying the requirements of this section if it makes the submissions required under subsection (a) of this section (relating to marginal areas).

(2) The Administrator may treat an ozone nonattainment area as a rural transport area if the Administrator finds that sources of VOC (and, where the Administrator determines relevant, NO_x) emissions within the area do not make a significant contribution to the ozone concentrations measured in the area or in other areas.

(i) Reclassified areas

Each State containing an ozone nonattainment area reclassified under section 7511(b)(2) of this title shall meet such requirements of subsections (b) through (d) of this section as may be applicable to the area as reclassified, according to the schedules prescribed in connection with such requirements, except that the Administrator may adjust any applicable deadlines (other than attainment dates) to the extent such adjustment is necessary or appropriate to assure consistency among the required submissions.

(j) Multi-State ozone nonattainment areas

(1) Coordination among States

Each State in which there is located a portion of a single ozone nonattainment area which covers more than one State (hereinafter in this section referred to as a ''multi-State ozone nonattainment area'') shall—

(A) take all reasonable steps to coordinate, substantively and procedurally, the revisions and implementation of State implementation plans applicable to the nonattainment area concerned; and

(B) use photochemical grid modeling or any other analytical method determined by the Administrator, in his discretion, to be at least as effective.

The Administrator may not approve any revision of a State implementation plan submitted under this part for a State in which part of a multi-State ozone nonattainment area is located if the plan revision for that State fails to comply with the requirements of this subsection.

(2) Failure to demonstrate attainment

If any State in which there is located a portion of a multi-State ozone nonattainment area fails to provide a demonstration of attainment of the national ambient air quality standard for ozone in that portion within the required period, the State may petition the Administrator to make a finding that the State would have been able to make such demonstration but for the failure of one or more other States in which other portions of the area are located to commit to the implementation of all measures required under this section (relating to plan submissions and requirements for ozone nonattainment areas). If the Administrator makes such finding, the provisions of section 7509 of this title (relating to sanctions) shall not apply, by reason of the failure to make such demonstration, in the portion of the multi-State ozone nonattainment area within the State submitting such petition.

(July 14, 1955, ch. 360, title I, § 182, as added Pub. L. 101–549, title I, § 103, Nov. 15, 1990, 104 Stat. 2426; amended Pub. L. 104–70, § 1, Dec. 23, 1995, 109 Stat. 773.)

REFERENCES IN TEXT

The Natural Gas Policy Act of 1978, referred to in subsec. (e)(3), is Pub. L. 95–621, Nov. 9, 1978, 92 Stat. 3350, as amended. Title III of the Act is classified generally to subchapter III (§ 3361 et seq.) of chapter 60 of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 3301 of Title 15 and Tables.

AMENDMENTS

1995—Subsec. (d)(1)(B). Pub. L. 104–70 amended subpar. (B) generally. Prior to amendment, subpar. (B) read as

follows: ''Within 2 years after November 15, 1990, the State shall submit a revision requiring employers in such area to implement programs to reduce work-related vehicle trips and miles traveled by employees. Such revision shall be developed in accordance with guidance issued by the Administrator pursuant to section 7408(f) of this title and shall, at a minimum, require that each employer of 100 or more persons in such area increase average passenger occupancy per vehicle in commuting trips between home and the workplace during peak travel periods by not less than 25 percent above the average vehicle occupancy for all such trips in the area at the time the revision is submitted. The guidance of the Administrator may specify average vehicle occupancy rates which vary for locations within a nonattainment area (suburban, center city, business district) or among nonattainment areas reflecting existing occupancy rates and the availability of high occupancy modes. The revision shall provide that each employer subject to a vehicle occupancy requirement shall submit a compliance plan within 2 years after the date the revision is submitted which shall convincingly demonstrate compliance with the requirements of this paragraph not later than 4 years after such date.''

MORATORIUM ON CERTAIN EMISSIONS TESTING REQUIREMENTS

Pub. L. 104–59, title III, §348, Nov. 28, 1995, 109 Stat. 617, provided that:

''(a) IN GENERAL.—The Administrator of the Environmental Protection Agency (hereinafter in this section referred to as the 'Administrator') shall not require adoption or implementation by a State of a test-only I/M240 enhanced vehicle inspection and maintenance program as a means of compliance with section 182 or 187 of the Clean Air Act (42 U.S.C. 7511a; 7512a), but the Administrator may approve such a program if a State chooses to adopt the program as a means of compliance with such section.

''(b) LIMITATION ON PLAN DISAPPROVAL.—The Administrator shall not disapprove or apply an automatic discount to a State implementation plan revision under section 182 or 187 of the Clean Air Act (42 U.S.C. 7511a; 7512a) on the basis of a policy, regulation, or guidance providing for a discount of emissions credits because the inspection and maintenance program in such plan revision is decentralized or a test-and-repair program.

''(c) EMISSIONS REDUCTION CREDITS.—

''(1) STATE PLAN REVISION; APPROVAL.—Within 120 days of the date of the enactment of this subsection [Nov. 28, 1995], a State may submit an implementation plan revision proposing an interim inspection and maintenance program under section 182 or 187 of the Clean Air Act (42 U.S.C. 7511a; 7512a). The Administrator shall approve the program based on the full amount of credits proposed by the State for each element of the program if the proposed credits reflect good faith estimates by the State and the revision is otherwise in compliance with such Act. If, within such 120-day period, the State submits to the Administrator proposed revisions to the implementation plan, has all of the statutory authority necessary to implement the revisions, and has proposed a regulation to make the revisions, the Administrator may approve the revisions without regard to whether or not such regulation has been issued as a final regulation by the State.

''(2) EXPIRATION OF INTERIM APPROVAL.—The interim approval shall expire on the earlier of (A) the last day of the 18-month period beginning on the date of the interim approval, or (B) the date of final approval. The interim approval may not be extended.

''(3) FINAL APPROVAL.—The Administrator shall grant final approval of the revision based on the credits proposed by the State during or after the period of interim approval if data collected on the operation of the State program demonstrates that the credits are appropriate and the revision is otherwise in compliance with the Clean Air Act [42 U.S.C. 7401 et seq.].

''(4) BASIS OF APPROVAL; NO AUTOMATIC DISCOUNT.—Any determination with respect to interim or full approval shall be based on the elements of the program and shall not apply any automatic discount because the program is decentralized or a test-and-repair program.''

§ 7511b. Federal ozone measures

(a) Control techniques guidelines for VOC sources

Within 3 years after November 15, 1990, the Administrator shall issue control techniques guidelines, in accordance with section 7408 of this title, for 11 categories of stationary sources of VOC emissions for which such guidelines have not been issued as of November 15, 1990, not including the categories referred to in paragraphs (3) and (4) of subsection (b) of this section. The Administrator may issue such additional control techniques guidelines as the Administrator deems necessary.

(b) Existing and new CTGS

(1) Within 36 months after November 15, 1990, and periodically thereafter, the Administrator shall review and, if necessary, update control technique guidance issued under section 7408 of this title before November 15, 1990.

(2) In issuing the guidelines the Administrator shall give priority to those categories which the Administrator considers to make the most significant contribution to the formation of ozone air pollution in ozone nonattainment areas, including hazardous waste treatment, storage, and disposal facilities which are permitted under subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.]. Thereafter the Administrator shall periodically review and, if necessary, revise such guidelines.

(3) Within 3 years after November 15, 1990, the Administrator shall issue control techniques guidelines in accordance with section 7408 of this title to reduce the aggregate emissions of volatile organic compounds into the ambient air from aerospace coatings and solvents. Such control techniques guidelines shall, at a minimum, be adequate to reduce aggregate emissions of volatile organic compounds into the ambient air from the application of such coatings and solvents to such level as the Administrator determines may be achieved through the adoption of best available control measures. Such control technology guidance shall provide for such reductions in such increments and on such schedules as the Administrator determines to be reasonable, but in no event later than 10 years after the final issuance of such control technology guidance. In developing control technology guidance under this subsection, the Administrator shall consult with the Secretary of Defense, the Secretary of Transportation, and the Administrator of the National Aeronautics and Space Administration with regard to the establishment of specifications for such coatings. In evaluating VOC reduction strategies, the guidance shall take into account the applicable requirements of section 7412 of this title and the need to protect stratospheric ozone.

(4) Within 3 years after November 15, 1990, the Administrator shall issue control techniques guidelines in accordance with section 7408 of this title to reduce the aggregate emissions of volatile organic compounds and PM–10 into the

ambient air from paints, coatings, and solvents used in shipbuilding operations and ship repair. Such control techniques guidelines shall, at a minimum, be adequate to reduce aggregate emissions of volatile organic compounds and PM–10 into the ambient air from the removal or application of such paints, coatings, and solvents to such level as the Administrator determines may be achieved through the adoption of the best available control measures. Such control techniques guidelines shall provide for such reductions in such increments and on such schedules as the Administrator determines to be reasonable, but in no event later than 10 years after the final issuance of such control technology guidance. In developing control techniques guidelines under this subsection, the Administrator shall consult with the appropriate Federal agencies.

(c) Alternative control techniques

Within 3 years after November 15, 1990, the Administrator shall issue technical documents which identify alternative controls for all categories of stationary sources of volatile organic compounds and oxides of nitrogen which emit, or have the potential to emit 25 tons per year or more of such air pollutant. The Administrator shall revise and update such documents as the Administrator determines necessary.

(d) Guidance for evaluating cost-effectiveness

Within 1 year after November 15, 1990, the Administrator shall provide guidance to the States to be used in evaluating the relative cost-effectiveness of various options for the control of emissions from existing stationary sources of air pollutants which contribute to nonattainment of the national ambient air quality standards for ozone.

(e) Control of emissions from certain sources

(1) Definitions

For purposes of this subsection—

(A) Best available controls

The term ''best available controls'' means the degree of emissions reduction that the Administrator determines, on the basis of technological and economic feasibility, health, environmental, and energy impacts, is achievable through the application of the most effective equipment, measures, processes, methods, systems or techniques, including chemical reformulation, product or feedstock substitution, repackaging, and directions for use, consumption, storage, or disposal.

(B) Consumer or commercial product

The term ''consumer or commercial product'' means any substance, product (including paints, coatings, and solvents), or article (including any container or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of volatile organic compounds. The term does not include fuels or fuel additives regulated under section 7545 of this title, or motor vehicles, non-road vehicles, and non-road engines as defined under section 7550 of this title.

(C) Regulated entities

The term ''regulated entities'' means—

(i) manufacturers, processors, wholesale distributors, or importers of consumer or commercial products for sale or distribution in interstate commerce in the United States; or

(ii) manufacturers, processors, wholesale distributors, or importers that supply the entities listed under clause (i) with such products for sale or distribution in interstate commerce in the United States.

(2) Study and report

(A) Study

The Administrator shall conduct a study of the emissions of volatile organic compounds into the ambient air from consumer and commercial products (or any combination thereof) in order to—

(i) determine their potential to contribute to ozone levels which violate the national ambient air quality standard for ozone; and

(ii) establish criteria for regulating consumer and commercial products or classes or categories thereof which shall be subject to control under this subsection.

The study shall be completed and a report submitted to Congress not later than 3 years after November 15, 1990.

(B) Consideration of certain factors

In establishing the criteria under subparagraph (A)(ii), the Administrator shall take into consideration each of the following:

(i) The uses, benefits, and commercial demand of consumer and commercial products.

(ii) The health or safety functions (if any) served by such consumer and commercial products.

(iii) Those consumer and commercial products which emit highly reactive volatile organic compounds into the ambient air.

(iv) Those consumer and commercial products which are subject to the most cost-effective controls.

(v) The availability of alternatives (if any) to such consumer and commercial products which are of comparable costs, considering health, safety, and environmental impacts.

(3) Regulations to require emission reductions

(A) In general

Upon submission of the final report under paragraph (2), the Administrator shall list those categories of consumer or commercial products that the Administrator determines, based on the study, account for at least 80 percent of the VOC emissions, on a reactivity-adjusted basis, from consumer or commercial products in areas that violate the NAAQS for ozone. Credit toward the 80 percent emissions calculation shall be given for emission reductions from consumer or commercial products made after November 15, 1990. At such time, the Administrator shall divide the list into 4 groups establishing pri-

orities for regulation based on the criteria established in paragraph (2). Every 2 years after promulgating such list, the Administrator shall regulate one group of categories until all 4 groups are regulated. The regulations shall require best available controls as defined in this section. Such regulations may exempt health use products for which the Administrator determines there is no suitable substitute. In order to carry out this section, the Administrator may, by regulation, control or prohibit any activity, including the manufacture or introduction into commerce, offering for sale, or sale of any consumer or commercial product which results in emission of volatile organic compounds into the ambient air.

(B) Regulated entities

Regulations under this subsection may be imposed only with respect to regulated entities.

(C) Use of CTGS

For any consumer or commercial product the Administrator may issue control techniques guidelines under this chapter in lieu of regulations required under subparagraph (A) if the Administrator determines that such guidance will be substantially as effective as regulations in reducing emissions of volatile organic compounds which contribute to ozone levels in areas which violate the national ambient air quality standard for ozone.

(4) Systems of regulation

The regulations under this subsection may include any system or systems of regulation as the Administrator may deem appropriate, including requirements for registration and labeling, self-monitoring and reporting, prohibitions, limitations, or economic incentives (including marketable permits and auctions of emissions rights) concerning the manufacture, processing, distribution, use, consumption, or disposal of the product.

(5) Special fund

Any amounts collected by the Administrator under such regulations shall be deposited in a special fund in the United States Treasury for licensing and other services, which thereafter shall be available until expended, subject to annual appropriation Acts, solely to carry out the activities of the Administrator for which such fees, charges, or collections are established or made.

(6) Enforcement

Any regulation established under this subsection shall be treated, for purposes of enforcement of this chapter, as a standard under section 7411 of this title and any violation of such regulation shall be treated as a violation of a requirement of section 7411(e) of this title.

(7) State administration

Each State may develop and submit to the Administrator a procedure under State law for implementing and enforcing regulations promulgated under this subsection. If the Administrator finds the State procedure is adequate, the Administrator shall approve such procedure. Nothing in this paragraph shall prohibit the Administrator from enforcing any applicable regulations under this subsection.

(8) Size, etc.

No regulations regarding the size, shape, or labeling of a product may be promulgated, unless the Administrator determines such regulations to be useful in meeting any national ambient air quality standard.

(9) State consultation

Any State which proposes regulations other than those adopted under this subsection shall consult with the Administrator regarding whether any other State or local subdivision has promulgated or is promulgating regulations on any products covered under this part. The Administrator shall establish a clearinghouse of information, studies, and regulations proposed and promulgated regarding products covered under this subsection and disseminate such information collected as requested by State or local subdivisions.

(f) Tank vessel standards

(1) Schedule for standards

(A) Within 2 years after November 15, 1990, the Administrator, in consultation with the Secretary of the Department in which the Coast Guard is operating, shall promulgate standards applicable to the emission of VOCs and any other air pollutant from loading and unloading of tank vessels (as that term is defined in section 2101 of title 46) which the Administrator finds causes, or contributes to, air pollution that may be reasonably anticipated to endanger public health or welfare. Such standards shall require the application of reasonably available control technology, considering costs, any nonair-quality benefits, environmental impacts, energy requirements and safety factors associated with alternative control techniques. To the extent practicable such standards shall apply to loading and unloading facilities and not to tank vessels.

(B) Any regulation prescribed under this subsection (and any revision thereof) shall take effect after such period as the Administrator finds (after consultation with the Secretary of the department[1] in which the Coast Guard is operating) necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period, except that the effective date shall not be more than 2 years after promulgation of such regulations.

(2) Regulations on equipment safety

Within 6 months after November 15, 1990, the Secretary of the Department in which the Coast Guard is operating shall issue regulations to ensure the safety of the equipment and operations which are to control emissions from the loading and unloading of tank vessels, under section 3703 of title 46 and section 1225 of title 33. The standards promulgated by the Administrator under paragraph (1) and the

[1] So in original. Probably should be capitalized.

regulations issued by a State or political subdivision regarding emissions from the loading and unloading of tank vessels shall be consistent with the regulations regarding safety of the Department in which the Coast Guard is operating.

(3) Agency authority

(A) The Administrator shall ensure compliance with the tank vessel emission standards prescribed under paragraph (1)(A). The Secretary of the Department in which the Coast Guard is operating shall also ensure compliance with the tank vessel standards prescribed under paragraph (1)(A).

(B) The Secretary of the Department in which the Coast Guard is operating shall ensure compliance with the regulations issued under paragraph (2).

(4) State or local standards

After the Administrator promulgates standards under this section, no State or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions from tank vessels subject to regulation under paragraph (1) unless such standard is no less stringent than the standards promulgated under paragraph (1).

(5) Enforcement

Any standard established under paragraph (1)(A) shall be treated, for purposes of enforcement of this chapter, as a standard under section 7411 of this title and any violation of such standard shall be treated as a violation of a requirement of section 7411(e) of this title.

(g) Ozone design value study

The Administrator shall conduct a study of whether the methodology in use by the Environmental Protection Agency as of November 15, 1990, for establishing a design value for ozone provides a reasonable indicator of the ozone air quality of ozone nonattainment areas. The Administrator shall obtain input from States, local subdivisions thereof, and others. The study shall be completed and a report submitted to Congress not later than 3 years after November 15, 1990. The results of the study shall be subject to peer and public review before submitting it to Congress.

(h) Vehicles entering ozone nonattainment areas

(1) Authority regarding ozone inspection and maintenance testing

(A) In general

No noncommercial motor vehicle registered in a foreign country and operated by a United States citizen or by an alien who is a permanent resident of the United States, or who holds a visa for the purposes of employment or educational study in the United States, may enter a covered ozone nonattainment area from a foreign country bordering the United States and contiguous to the nonattainment area more than twice in a single calendar-month period, if State law has requirements for the inspection and maintenance of such vehicles under the applicable implementation plan in the nonattainment area.

(B) Applicability

Subparagraph (A) shall not apply if the operator presents documentation at the United States border entry point establishing that the vehicle has complied with such inspection and maintenance requirements as are in effect and are applicable to motor vehicles of the same type and model year.

(2) Sanctions for violations

The President may impose and collect from the operator of any motor vehicle who violates, or attempts to violate, paragraph (1) a civil penalty of not more than $200 for the second violation or attempted violation and $400 for the third and each subsequent violation or attempted violation.

(3) State election

The prohibition set forth in paragraph (1) shall not apply in any State that elects to be exempt from the prohibition. Such an election shall take effect upon the President's receipt of written notice from the Governor of the State notifying the President of such election.

(4) Alternative approach

The prohibition set forth in paragraph (1) shall not apply in a State, and the President may implement an alternative approach, if—

(A) the Governor of the State submits to the President a written description of an alternative approach to facilitate the compliance, by some or all foreign-registered motor vehicles, with the motor vehicle inspection and maintenance requirements that are—

(i) related to emissions of air pollutants;

(ii) in effect under the applicable implementation plan in the covered ozone nonattainment area; and

(iii) applicable to motor vehicles of the same types and model years as the foreign-registered motor vehicles; and

(B) the President approves the alternative approach as facilitating compliance with the motor vehicle inspection and maintenance requirements referred to in subparagraph (A).

(5) Definition of covered ozone nonattainment area

In this section, the term ''covered ozone nonattainment area'' means a Serious Area, as classified under section 7511 of this title as of October 27, 1998.

(July 14, 1955, ch. 360, title I, § 183, as added Pub. L. 101–549, title I, § 103, Nov. 15, 1990, 104 Stat. 2443; amended Pub. L. 105–286, § 2, Oct. 27, 1998, 112 Stat. 2773.)

REFERENCES IN TEXT

The Solid Waste Disposal Act, referred to in subsec. (b)(2), is title II of Pub. L. 89–272, Oct. 20, 1965, 79 Stat. 997, as amended generally by Pub. L. 94–580, § 2, Oct. 21, 1976, 90 Stat. 2795. Subtitle C of the Act is classified generally to subchapter III (§ 6921 et seq.) of chapter 82 of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6901 of this title and Tables.

AMENDMENTS

1998—Subsec. (h). Pub. L. 105–286 added subsec. (h).

EFFECTIVE DATE OF 1998 AMENDMENT; PUBLICATION OF PROHIBITION

Pub. L. 105–286, § 3, Oct. 27, 1998, 112 Stat. 2774, provided that:

''(a) IN GENERAL.—The amendment made by section 2 [amending this section] takes effect 180 days after the date of the enactment of this Act [Oct. 27, 1998]. Nothing in that amendment shall require action that is inconsistent with the obligations of the United States under any international agreement.

''(b) INFORMATION.—As soon as practicable after the date of the enactment of this Act, the appropriate agency of the United States shall distribute information to publicize the prohibition set forth in the amendment made by section 2.''

TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

§ 7511c. Control of interstate ozone air pollution

(a) Ozone transport regions

A single transport region for ozone (within the meaning of section 7506a(a) of this title), comprised of the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the Consolidated Metropolitan Statistical Area that includes the District of Columbia, is hereby established by operation of law. The provisions of section 7506a(a)(1) and (2) of this title shall apply with respect to the transport region established under this section and any other transport region established for ozone, except to the extent inconsistent with the provisions of this section. The Administrator shall convene the commission required (under section 7506a(b) of this title) as a result of the establishment of such region within 6 months of November 15, 1990.

(b) Plan provisions for States in ozone transport regions

(1) In accordance with section 7410 of this title, not later than 2 years after November 15, 1990 (or 9 months after the subsequent inclusion of a State in a transport region established for ozone), each State included within a transport region established for ozone shall submit a State implementation plan or revision thereof to the Administrator which requires the following—

(A) that each area in such State that is in an ozone transport region, and that is a metropolitan statistical area or part thereof with a population of 100,000 or more comply with the provisions of section 7511a(c)(2)(A) of this title (pertaining to enhanced vehicle inspection and maintenance programs); and

(B) implementation of reasonably available control technology with respect to all sources of volatile organic compounds in the State covered by a control techniques guideline issued before or after November 15, 1990.

(2) Within 3 years after November 15, 1990, the Administrator shall complete a study identifying control measures capable of achieving emission reductions comparable to those achievable through vehicle refueling controls contained in section 7511a(b)(3) of this title, and such measures or such vehicle refueling controls shall be implemented in accordance with the provisions of this section. Notwithstanding other deadlines in this section, the applicable implementation plan shall be revised to reflect such measures within 1 year of completion of the study. For purposes of this section any stationary source that emits or has the potential to emit at least 50 tons per year of volatile organic compounds shall be considered a major stationary source and subject to the requirements which would be applicable to major stationary sources if the area were classified as a Moderate nonattainment area.

(c) Additional control measures

(1) Recommendations

Upon petition of any State within a transport region established for ozone, and based on a majority vote of the Governors on the Commission[1] (or their designees), the Commission[1] may, after notice and opportunity for public comment, develop recommendations for additional control measures to be applied within all or a part of such transport region if the commission determines such measures are necessary to bring any area in such region into attainment by the dates provided by this subpart. The commission shall transmit such recommendations to the Administrator.

(2) Notice and review

Whenever the Administrator receives recommendations prepared by a commission pursuant to paragraph (1) (the date of receipt of which shall hereinafter in this section be referred to as the ''receipt date''), the Administrator shall—

(A) immediately publish in the Federal Register a notice stating that the recommendations are available and provide an opportunity for public hearing within 90 days beginning on the receipt date; and

(B) commence a review of the recommendations to determine whether the control measures in the recommendations are necessary to bring any area in such region into attainment by the dates provided by this subpart and are otherwise consistent with this chapter.

(3) Consultation

In undertaking the review required under paragraph (2)(B), the Administrator shall consult with members of the commission of the affected States and shall take into account the data, views, and comments received pursuant to paragraph (2)(A).

(4) Approval and disapproval

Within 9 months after the receipt date, the Administrator shall (A) determine whether to approve, disapprove, or partially disapprove and partially approve the recommendations; (B) notify the commission in writing of such approval, disapproval, or partial disapproval;

[1] So in original. Probably should not be capitalized.

and (C) publish such determination in the Federal Register. If the Administrator disapproves or partially disapproves the recommendations, the Administrator shall specify—

(i) why any disapproved additional control measures are not necessary to bring any area in such region into attainment by the dates provided by this subpart or are otherwise not consistent with the[2] chapter; and

(ii) recommendations concerning equal or more effective actions that could be taken by the commission to conform the disapproved portion of the recommendations to the requirements of this section.

(5) Finding

Upon approval or partial approval of recommendations submitted by a commission, the Administrator shall issue to each State which is included in the transport region and to which a requirement of the approved plan applies, a finding under section 7410(k)(5) of this title that the implementation plan for such State is inadequate to meet the requirements of section 7410(a)(2)(D) of this title. Such finding shall require each such State to revise its implementation plan to include the approved additional control measures within one year after the finding is issued.

(d) Best available air quality monitoring and modeling

For purposes of this section, not later than 6 months after November 15, 1990, the Administrator shall promulgate criteria for purposes of determining the contribution of sources in one area to concentrations of ozone in another area which is a nonattainment area for ozone. Such criteria shall require that the best available air quality monitoring and modeling techniques be used for purposes of making such determinations.

(July 14, 1955, ch. 360, title I, § 184, as added Pub. L. 101–549, title I, § 103, Nov. 15, 1990, 104 Stat. 2448.)

§ 7511d. Enforcement for Severe and Extreme ozone nonattainment areas for failure to attain

(a) General rule

Each implementation plan revision required under section 7511a(d) and (e) of this title (relating to the attainment plan for Severe and Extreme ozone nonattainment areas) shall provide that, if the area to which such plan revision applies has failed to attain the national primary ambient air quality standard for ozone by the applicable attainment date, each major stationary source of VOCs located in the area shall, except as otherwise provided under subsection (c), pay a fee to the State as a penalty for such failure, computed in accordance with subsection (b), for each calendar year beginning after the attainment date, until the area is redesignated as an attainment area for ozone. Each such plan revision should include procedures for assessment and collection of such fees.

(b) Computation of fee

(1) Fee amount

The fee shall equal $5,000, adjusted in accordance with paragraph (3), per ton of VOC emitted by the source during the calendar year in excess of 80 percent of the baseline amount, computed under paragraph (2).

(2) Baseline amount

For purposes of this section, the baseline amount shall be computed, in accordance with such guidance as the Administrator may provide, as the lower of the amount of actual VOC emissions (''actuals'') or VOC emissions allowed under the permit applicable to the source (or, if no such permit has been issued for the attainment year, the amount of VOC emissions allowed under the applicable implementation plan (''allowables'')) during the attainment year. Notwithstanding the preceding sentence, the Administrator may issue guidance authorizing the baseline amount to be determined in accordance with the lower of average actuals or average allowables, determined over a period of more than one calendar year. Such guidance may provide that such average calculation for a specific source may be used if that source's emissions are irregular, cyclical, or otherwise vary significantly from year to year.

(3) Annual adjustment

The fee amount under paragraph (1) shall be adjusted annually, beginning in the year beginning after 1990, in accordance with section 7661a(b)(3)(B)(v) of this title (relating to inflation adjustment).

(c) Exception

Notwithstanding any provision of this section, no source shall be required to pay any fee under subsection (a) with respect to emissions during any year that is treated as an Extension Year under section 7511(a)(5) of this title.

(d) Fee collection by Administrator

If the Administrator has found that the fee provisions of the implementation plan do not meet the requirements of this section, or if the Administrator makes a finding that the State is not administering and enforcing the fee required under this section, the Administrator shall, in addition to any other action authorized under this subchapter, collect, in accordance with procedures promulgated by the Administrator, the unpaid fees required under subsection (a). If the Administrator makes such a finding under section 7509(a)(4) of this title, the Administrator may collect fees for periods before the determination, plus interest computed in accordance with section 6621(a)(2) of title 26 (relating to computation of interest on underpayment of Federal taxes), to the extent the Administrator finds such fees have not been paid to the State. The provisions of clauses (ii) through (iii) of section 7661a(b)(3)(C) of this title (relating to penalties and use of the funds, respectively) shall apply with respect to fees collected under this subsection.

(e) Exemptions for certain small areas

For areas with a total population under 200,000 which fail to attain the standard by the applica-

[2] So in original. Probably should be ''this''.

ble attainment date, no sanction under this section or under any other provision of this chapter shall apply if the area can demonstrate, consistent with guidance issued by the Administrator, that attainment in the area is prevented because of ozone or ozone precursors transported from other areas. The prohibition applies only in cases in which the area has met all requirements and implemented all measures applicable to the area under this chapter.

(July 14, 1955, ch. 360, title I, §185, as added Pub. L. 101–549, title I, §103, Nov. 15, 1990, 104 Stat. 2450.)

§ 7511e. Transitional areas

If an area designated as an ozone nonattainment area as of November 15, 1990, has not violated the national primary ambient air quality standard for ozone for the 36-month period commencing on January 1, 1987, and ending on December 31, 1989, the Administrator shall suspend the application of the requirements of this subpart to such area until December 31, 1991. By June 30, 1992, the Administrator shall determine by order, based on the area's design value as of the attainment date, whether the area attained such standard by December 31, 1991. If the Administrator determines that the area attained the standard, the Administrator shall require, as part of the order, the State to submit a maintenance plan for the area within 12 months of such determination. If the Administrator determines that the area failed to attain the standard, the Administrator shall, by June 30, 1992, designate the area as nonattainment under section 7407(d)(4) of this title.

(July 14, 1955, ch. 360, title I, §185A, as added Pub. L. 101–549, title I, §103, Nov. 15, 1990, 104 Stat. 2451.)

§ 7511f. NO_x and VOC study

The Administrator, in conjunction with the National Academy of Sciences, shall conduct a study on the role of ozone precursors in tropospheric ozone formation and control. The study shall examine the roles of NO_x and VOC emission reductions, the extent to which NO_x reductions may contribute (or be counterproductive) to achievement of attainment in different nonattainment areas, the sensitivity of ozone to the control of NO_x, the availability and extent of controls for NO_x, the role of biogenic VOC emissions, and the basic information required for air quality models. The study shall be completed and a proposed report made public for 30 days comment within 1 year of November 15, 1990, and a final report shall be submitted to Congress within 15 months after November 15, 1990. The Administrator shall utilize all available information and studies, as well as develop additional information, in conducting the study required by this section.

(July 14, 1955, ch. 360, title I, §185B, as added Pub. L. 101–549, title I, §103, Nov. 15, 1990, 104 Stat. 2452.)

SUBPART 3—ADDITIONAL PROVISIONS FOR CARBON MONOXIDE NONATTAINMENT AREAS

§ 7512. Classification and attainment dates

(a) Classification by operation of law and attainment dates for nonattainment areas

(1) Each area designated nonattainment for carbon monoxide pursuant to section 7407(d) of this title shall be classified at the time of such designation under table 1, by operation of law, as a Moderate Area or a Serious Area based on the design value for the area. The design value shall be calculated according to the interpretation methodology issued by the Administrator most recently before November 15, 1990. For each area classified under this subsection, the primary standard attainment date for carbon monoxide shall be as expeditiously as practicable but not later than the date provided in table 1:

TABLE 3[1]

Area classification	Design value	Primary standard attainment date
Moderate	9.1–16.4 ppm	December 31, 1995
Serious	16.5 and above ...	December 31, 2000

(2) At the time of publication of the notice required under section 7407 of this title (designating carbon monoxide nonattainment areas), the Administrator shall publish a notice announcing the classification of each such carbon monoxide nonattainment area. The provisions of section 7502(a)(1)(B) of this title (relating to lack of notice-and-comment and judicial review) shall apply with respect to such classification.

(3) If an area classified under paragraph (1), table 1, would have been classified in another category if the design value in the area were 5 percent greater or 5 percent less than the level on which such classification was based, the Administrator may, in the Administrator's discretion, within 90 days after November 15, 1990, by the procedure required under paragraph (2), adjust the classification of the area. In making such adjustment, the Administrator may consider the number of exceedances of the national primary ambient air quality standard for carbon monoxide in the area, the level of pollution transport between the area and the other affected areas, and the mix of sources and air pollutants in the area. The Administrator may make the same adjustment for purposes of paragraphs (2), (3), (6), and (7) of section 7512a(a) of this title.

(4) Upon application by any State, the Administrator may extend for 1 additional year (hereinafter in this subpart referred to as the ''Extension Year'') the date specified in table 1 of subsection (a) if—

(A) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan, and

(B) no more than one exceedance of the national ambient air quality standard level for carbon monoxide has occurred in the area in the year preceding the Extension Year.

[1] So in original. Probably should be ''TABLE 1''.

No more than 2 one-year extensions may be issued under this paragraph for a single nonattainment area.

(b) New designations and reclassifications

(1) New designations to nonattainment

Any area that is designated attainment or unclassifiable for carbon monoxide under section 7407(d)(4) of this title, and that is subsequently redesignated to nonattainment for carbon monoxide under section 7407(d)(3) of this title, shall, at the time of the redesignation, be classified by operation of law in accordance with table 1 under subsections (a)(1) and (a)(4). Upon its classification, the area shall be subject to the same requirements under section 7410 of this title, subpart 1 of this part, and this subpart that would have applied had the area been so classified at the time of the notice under subsection (a)(2), except that any absolute, fixed date applicable in connection with any such requirement is extended by operation of law by a period equal to the length of time between November 15, 1990, and the date the area is classified.

(2) Reclassification of Moderate Areas upon failure to attain

(A) General rule

Within 6 months following the applicable attainment date for a carbon monoxide nonattainment area, the Administrator shall determine, based on the area's design value as of the attainment date, whether the area has attained the standard by that date. Any Moderate Area that the Administrator finds has not attained the standard by that date shall be reclassified by operation of law in accordance with table 1 of subsection (a)(1) as a Serious Area.

(B) Publication of notice

The Administrator shall publish a notice in the Federal Register, no later than 6 months following the attainment date, identifying each area that the Administrator has determined, under subparagraph (A), as having failed to attain and identifying the reclassification, if any, described under subparagraph (A).

(c) References to terms

Any reference in this subpart to a ''Moderate Area'' or a ''Serious Area'' shall be considered a reference to a Moderate Area or a Serious Area, respectively, as classified under this section.

(July 14, 1955, ch. 360, title I, §186, as added Pub. L. 101–549, title I, §104, Nov. 15, 1990, 104 Stat. 2452.)

§ 7512a. Plan submissions and requirements

(a) Moderate Areas

Each State in which all or part of a Moderate Area is located shall, with respect to the Moderate Area (or portion thereof, to the extent specified in guidance of the Administrator issued before November 15, 1990), submit to the Administrator the State implementation plan revisions (including the plan items) described under this subsection, within such periods as are prescribed under this subsection, except to the extent the State has made such submissions as of November 15, 1990:

(1) Inventory

No later than 2 years from November 15, 1990, the State shall submit a comprehensive, accurate, current inventory of actual emissions from all sources, as described in section 7502(c)(3) of this title, in accordance with guidance provided by the Administrator.

(2)(A) Vehicle miles traveled

No later than 2 years after November 15, 1990, for areas with a design value above 12.7 ppm at the time of classification, the plan revision shall contain a forecast of vehicle miles traveled in the nonattainment area concerned for each year before the year in which the plan projects the national ambient air quality standard for carbon monoxide to be attained in the area. The forecast shall be based on guidance which shall be published by the Administrator, in consultation with the Secretary of Transportation, within 6 months after November 15, 1990. The plan revision shall provide for annual updates of the forecasts to be submitted to the Administrator together with annual reports regarding the extent to which such forecasts proved to be accurate. Such annual reports shall contain estimates of actual vehicle miles traveled in each year for which a forecast was required.

(B) Special rule for Denver

Within 2 years after November 15, 1990, in the case of Denver, the State shall submit a revision that includes the transportation control measures as required in section 7511a(d)(1)(A) of this title except that such revision shall be for the purpose of reducing CO emissions rather than volatile organic compound emissions. If the State fails to include any such measure, the implementation plan shall contain an explanation of why such measure was not adopted and what emissions reduction measure was adopted to provide a comparable reduction in emissions, or reasons why such reduction is not necessary to attain the national primary ambient air quality standard for carbon monoxide.

(3) Contingency provisions

No later than 2 years after November 15, 1990, for areas with a design value above 12.7 ppm at the time of classification, the plan revision shall provide for the implementation of specific measures to be undertaken if any estimate of vehicle miles traveled in the area which is submitted in an annual report under paragraph (2) exceeds the number predicted in the most recent prior forecast or if the area fails to attain the national primary ambient air quality standard for carbon monoxide by the primary standard attainment date. Such measures shall be included in the plan revision as contingency measures to take effect without further action by the State or the Administrator if the prior forecast has been exceeded by an updated forecast or if the national standard is not attained by such deadline.

(4) Savings clause for vehicle inspection and maintenance provisions of the State implementation plan

Immediately after November 15, 1990, for any Moderate Area (or, within the Administrator's discretion, portion thereof), the plan for which is of the type described in section 7511a(a)(2)(B) of this title any provisions necessary to ensure that the applicable implementation plan includes the vehicle inspection and maintenance program described in section 7511a(a)(2)(B) of this title.

(5) Periodic inventory

No later than September 30, 1995, and no later than the end of each 3 year period thereafter, until the area is redesignated to attainment, a revised inventory meeting the requirements of subsection (a)(1).

(6) Enhanced vehicle inspection and maintenance

No later than 2 years after November 15, 1990, in the case of Moderate Areas with a design value greater than 12.7 ppm at the time of classification, a revision that includes provisions for an enhanced vehicle inspection and maintenance program as required in section 7511a(c)(3) of this title (concerning serious ozone nonattainment areas), except that such program shall be for the purpose of reducing carbon monoxide rather than hydrocarbon emissions.

(7) Attainment demonstration and specific annual emission reductions

In the case of Moderate Areas with a design value greater than 12.7 ppm at the time of classification, no later than 2 years after November 15, 1990, a revision to provide, and a demonstration that the plan as revised will provide, for attainment of the carbon monoxide NAAQS by the applicable attainment date and provisions for such specific annual emission reductions as are necessary to attain the standard by that date.

The Administrator may, in the Administrator's discretion, require States to submit a schedule for submitting any of the revisions or other items required under this subsection. In the case of Moderate Areas with a design value of 12.7 ppm or lower at the time of classification, the requirements of this subsection shall apply in lieu of any requirement that the State submit a demonstration that the applicable implementation plan provides for attainment of the carbon monoxide standard by the applicable attainment date.

(b) Serious Areas

(1) In general

Each State in which all or part of a Serious Area is located shall, with respect to the Serious Area, make the submissions (other than those required under subsection (a)(1)(B)[1]) applicable under subsection (a) to Moderate Areas with a design value of 12.7 ppm or greater at the time of classification, and shall also submit the revision and other items described under this subsection.

(2) Vehicle miles traveled

Within 2 years after November 15, 1990, the State shall submit a revision that includes the transportation control measures as required in section 7511a(d)(1) of this title except that such revision shall be for the purpose of reducing CO emissions rather than volatile organic compound emissions. In the case of any such area (other than an area in New York State) which is a covered area (as defined in section 7586(a)(2)(B) of this title) for purposes of the Clean Fuel Fleet program under part C of subchapter II, if the State fails to include any such measure, the implementation plan shall contain an explanation of why such measure was not adopted and what emissions reduction measure was adopted to provide a comparable reduction in emissions, or reasons why such reduction is not necessary to attain the national primary ambient air quality standard for carbon monoxide.

(3) Oxygenated gasoline

(A) Within 2 years after November 15, 1990, the State shall submit a revision to require that gasoline sold, supplied, offered for sale or supply, dispensed, transported or introduced into commerce in the larger of—

(i) the Consolidated Metropolitan Statistical Area (as defined by the United States Office of Management and Budget) (CMSA) in which the area is located, or

(ii) if the area is not located in a CMSA, the Metropolitan Statistical Area (as defined by the United States Office of Management and Budget) in which the area is located,

be blended, during the portion of the year in which the area is prone to high ambient concentrations of carbon monoxide (as determined by the Administrator), with fuels containing such level of oxygen as is necessary, in combination with other measures, to provide for attainment of the carbon monoxide national ambient air quality standard by the applicable attainment date and maintenance of the national ambient air quality standard thereafter in the area. The revision shall provide that such requirement shall take effect no later than October 1, 1993, and shall include a program for implementation and enforcement of the requirement consistent with guidance to be issued by the Administrator.

(B) Notwithstanding subparagraph (A), the revision described in this paragraph shall not be required for an area if the State demonstrates to the satisfaction of the Administrator that the revision is not necessary to provide for attainment of the carbon monoxide national ambient air quality standard by the applicable attainment date and maintenance of the national ambient air quality standard thereafter in the area.

(c) Areas with significant stationary source emissions of CO

(1) Serious Areas

In the case of Serious Areas in which stationary sources contribute significantly to

[1] So in original. Subsec. (a)(1) of this section does not contain a subpar. (B).

carbon monoxide levels (as determined under rules issued by the Administrator), the State shall submit a plan revision within 2 years after November 15, 1990, which provides that the term ''major stationary source'' includes (in addition to the sources described in section 7602 of this title) any stationary source which emits, or has the potential to emit, 50 tons per year or more of carbon monoxide.

(2) Waivers for certain areas

The Administrator may, on a case-by-case basis, waive any requirements that pertain to transportation controls, inspection and maintenance, or oxygenated fuels where the Administrator determines by rule that mobile sources of carbon monoxide do not contribute significantly to carbon monoxide levels in the area.

(3) Guidelines

Within 6 months after November 15, 1990, the Administrator shall issue guidelines for and rules determining whether stationary sources contribute significantly to carbon monoxide levels in an area.

(d) CO milestone

(1) Milestone demonstration

By March 31, 1996, each State in which all or part of a Serious Area is located shall submit to the Administrator a demonstration that the area has achieved a reduction in emissions of CO equivalent to the total of the specific annual emission reductions required by December 31, 1995. Such reductions shall be referred to in this subsection as the milestone.

(2) Adequacy of demonstration

A demonstration under this paragraph shall be submitted in such form and manner, and shall contain such information and analysis, as the Administrator shall require. The Administrator shall determine whether or not a State's demonstration is adequate within 90 days after the Administrator's receipt of a demonstration which contains the information and analysis required by the Administrator.

(3) Failure to meet emission reduction milestone

If a State fails to submit a demonstration under paragraph (1) within the required period, or if the Administrator notifies the State that the State has not met the milestone, the State shall, within 9 months after such a failure or notification, submit a plan revision to implement an economic incentive and transportation control program as described in section 7511a(g)(4) of this title. Such revision shall be sufficient to achieve the specific annual reductions in carbon monoxide emissions set forth in the plan by the attainment date.

(e) Multi-State CO nonattainment areas

(1) Coordination among States

Each State in which there is located a portion of a single nonattainment area for carbon monoxide which covers more than one State (''multi-State nonattainment area'') shall take all reasonable steps to coordinate, substantively and procedurally, the revisions and implementation of State implementation plans applicable to the nonattainment area concerned. The Administrator may not approve any revision of a State implementation plan submitted under this part for a State in which part of a multi-State nonattainment area is located if the plan revision for that State fails to comply with the requirements of this subsection.

(2) Failure to demonstrate attainment

If any State in which there is located a portion of a multi-State nonattainment area fails to provide a demonstration of attainment of the national ambient air quality standard for carbon monoxide in that portion within the period required under this part the State may petition the Administrator to make a finding that the State would have been able to make such demonstration but for the failure of one or more other States in which other portions of the area are located to commit to the implementation of all measures required under this section (relating to plan submissions for carbon monoxide nonattainment areas). If the Administrator makes such finding, in the portion of the nonattainment area within the State submitting such petition, no sanction shall be imposed under section 7509 of this title or under any other provision of this chapter, by reason of the failure to make such demonstration.

(f) Reclassified areas

Each State containing a carbon monoxide nonattainment area reclassified under section 7512(b)(2) of this title shall meet the requirements of subsection (b) of this section, as may be applicable to the area as reclassified, according to the schedules prescribed in connection with such requirements, except that the Administrator may adjust any applicable deadlines (other than the attainment date) where such deadlines are shown to be infeasible.

(g) Failure of Serious Area to attain standard

If the Administrator determines under section 7512(b)(2) of this title that the national primary ambient air quality standard for carbon monoxide has not been attained in a Serious Area by the applicable attainment date, the State shall submit a plan revision for the area within 9 months after the date of such determination. The plan revision shall provide that a program of incentives and requirements as described in section 7511a(g)(4) of this title shall be applicable in the area, and such program, in combination with other elements of the revised plan, shall be adequate to reduce the total tonnage of emissions of carbon monoxide in the area by at least 5 percent per year in each year after approval of the plan revision and before attainment of the national primary ambient air quality standard for carbon monoxide.

(July 14, 1955, ch. 360, title I, § 187, as added Pub. L. 101–549, title I, § 104, Nov. 15, 1990, 104 Stat. 2454.)

MORATORIUM ON CERTAIN EMISSIONS TESTING REQUIREMENTS

For provisions prohibiting Administrator of Environmental Protection Agency from requiring adoption or

implementation by State of test-only I/M240 enhanced vehicle inspection and maintenance program as means of compliance with this section, with further provisions relating to plan disapproval and emissions reduction credits, see section 348 of Pub. L. 104–59, set out as a note under section 7511a of this title.

SUBPART 4—ADDITIONAL PROVISIONS FOR PARTICULATE MATTER NONATTAINMENT AREAS

§ 7513. Classifications and attainment dates

(a) Initial classifications

Every area designated nonattainment for PM–10 pursuant to section 7407(d) of this title shall be classified at the time of such designation, by operation of law, as a moderate PM–10 nonattainment area (also referred to in this subpart as a ''Moderate Area'') at the time of such designation. At the time of publication of the notice under section 7407(d)(4) of this title (relating to area designations) for each PM–10 nonattainment area, the Administrator shall publish a notice announcing the classification of such area. The provisions of section 7502(a)(1)(B) of this title (relating to lack of notice-and-comment and judicial review) shall apply with respect to such classification.

(b) Reclassification as Serious

(1) Reclassification before attainment date

The Administrator may reclassify as a Serious PM–10 nonattainment area (identified in this subpart also as a ''Serious Area'') any area that the Administrator determines cannot practicably attain the national ambient air quality standard for PM–10 by the attainment date (as prescribed in subsection (c)) for Moderate Areas. The Administrator shall reclassify appropriate areas as Serious by the following dates:

(A) For areas designated nonattainment for PM–10 under section 7407(d)(4) of this title, the Administrator shall propose to reclassify appropriate areas by June 30, 1991, and take final action by December 31, 1991.

(B) For areas subsequently designated nonattainment, the Administrator shall reclassify appropriate areas within 18 months after the required date for the State's submission of a SIP for the Moderate Area.

(2) Reclassification upon failure to attain

Within 6 months following the applicable attainment date for a PM–10 nonattainment area, the Administrator shall determine whether the area attained the standard by that date. If the Administrator finds that any Moderate Area is not in attainment after the applicable attainment date—

(A) the area shall be reclassified by operation of law as a Serious Area; and

(B) the Administrator shall publish a notice in the Federal Register no later than 6 months following the attainment date, identifying the area as having failed to attain and identifying the reclassification described under subparagraph (A).

(c) Attainment dates

Except as provided under subsection (d), the attainment dates for PM–10 nonattainment areas shall be as follows:

(1) Moderate Areas

For a Moderate Area, the attainment date shall be as expeditiously as practicable but no later than the end of the sixth calendar year after the area's designation as nonattainment, except that, for areas designated nonattainment for PM–10 under section 7407(d)(4) of this title, the attainment date shall not extend beyond December 31, 1994.

(2) Serious Areas

For a Serious Area, the attainment date shall be as expeditiously as practicable but no later than the end of the tenth calendar year beginning after the area's designation as nonattainment, except that, for areas designated nonattainment for PM–10 under section 7407(d)(4) of this title, the date shall not extend beyond December 31, 2001.

(d) Extension of attainment date for Moderate Areas

Upon application by any State, the Administrator may extend for 1 additional year (hereinafter referred to as the ''Extension Year'') the date specified in paragraph[1] (c)(1) if—

(1) the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan; and

(2) no more than one exceedance of the 24-hour national ambient air quality standard level for PM–10 has occurred in the area in the year preceding the Extension Year, and the annual mean concentration of PM–10 in the area for such year is less than or equal to the standard level.

No more than 2 one-year extensions may be issued under the subsection for a single nonattainment area.

(e) Extension of attainment date for Serious Areas

Upon application by any State, the Administrator may extend the attainment date for a Serious Area beyond the date specified under subsection (c), if attainment by the date established under subsection (c) would be impracticable, the State has complied with all requirements and commitments pertaining to that area in the implementation plan, and the State demonstrates to the satisfaction of the Administrator that the plan for that area includes the most stringent measures that are included in the implementation plan of any State or are achieved in practice in any State, and can feasibly be implemented in the area. At the time of such application, the State must submit a revision to the implementation plan that includes a demonstration of attainment by the most expeditious alternative date practicable. In determining whether to grant an extension, and the appropriate length of time for any such extension, the Administrator may consider the nature and extent of nonattainment, the types and numbers of sources or other emitting activities in the area (including the influence of uncontrollable natural sources and transboundary emissions from foreign countries), the population exposed to

[1] So in original. Probably should be ''subsection''.

concentrations in excess of the standard, the presence and concentration of potentially toxic substances in the mix of particulate emissions in the area, and the technological and economic feasibility of various control measures. The Administrator may not approve an extension until the State submits an attainment demonstration for the area. The Administrator may grant at most one such extension for an area, of no more than 5 years.

(f) Waivers for certain areas

The Administrator may, on a case-by-case basis, waive any requirement applicable to any Serious Area under this subpart where the Administrator determines that anthropogenic sources of PM–10 do not contribute significantly to the violation of the PM–10 standard in the area. The Administrator may also waive a specific date for attainment of the standard where the Administrator determines that non-anthropogenic sources of PM–10 contribute significantly to the violation of the PM–10 standard in the area.

(July 14, 1955, ch. 360, title I, § 188, as added Pub. L. 101–549, title I, § 105(a), Nov. 15, 1990, 104 Stat. 2458.)

§ 7513a. Plan provisions and schedules for plan submissions

(a) Moderate Areas

(1) Plan provisions

Each State in which all or part of a Moderate Area is located shall submit, according to the applicable schedule under paragraph (2), an implementation plan that includes each of the following:

(A) For the purpose of meeting the requirements of section 7502(c)(5) of this title, a permit program providing that permits meeting the requirements of section 7503 of this title are required for the construction and operation of new and modified major stationary sources of PM–10.

(B) Either (i) a demonstration (including air quality modeling) that the plan will provide for attainment by the applicable attainment date; or (ii) a demonstration that attainment by such date is impracticable.

(C) Provisions to assure that reasonably available control measures for the control of PM–10 shall be implemented no later than December 10, 1993, or 4 years after designation in the case of an area classified as moderate after November 15, 1990.

(2) Schedule for plan submissions

A State shall submit the plan required under subparagraph (1) no later than the following:

(A) Within 1 year of November 15, 1990, for areas designated nonattainment under section 7407(d)(4) of this title, except that the provision required under subparagraph (1)(A) shall be submitted no later than June 30, 1992.

(B) 18 months after the designation as nonattainment, for those areas designated nonattainment after the designations prescribed under section 7407(d)(4) of this title.

(b) Serious Areas

(1) Plan provisions

In addition to the provisions submitted to meet the requirements of paragraph[1] (a)(1) (relating to Moderate Areas), each State in which all or part of a Serious Area is located shall submit an implementation plan for such area that includes each of the following:

(A) A demonstration (including air quality modeling)—

(i) that the plan provides for attainment of the PM–10 national ambient air quality standard by the applicable attainment date, or

(ii) for any area for which the State is seeking, pursuant to section 7513(e) of this title, an extension of the attainment date beyond the date set forth in section 7513(c) of this title, that attainment by that date would be impracticable, and that the plan provides for attainment by the most expeditious alternative date practicable.

(B) Provisions to assure that the best available control measures for the control of PM–10 shall be implemented no later than 4 years after the date the area is classified (or reclassified) as a Serious Area.

(2) Schedule for plan submissions

A State shall submit the demonstration required for an area under paragraph (1)(A) no later than 4 years after reclassification of the area to Serious, except that for areas reclassified under section 7513(b)(2) of this title, the State shall submit the attainment demonstration within 18 months after reclassification to Serious. A State shall submit the provisions described under paragraph (1)(B) no later than 18 months after reclassification of the area as a Serious Area.

(3) Major sources

For any Serious Area, the terms ''major source'' and ''major stationary source'' include any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, at least 70 tons per year of PM–10.

(c) Milestones

(1) Plan revisions demonstrating attainment submitted to the Administrator for approval under this subpart shall contain quantitative milestones which are to be achieved every 3 years until the area is redesignated attainment and which demonstrate reasonable further progress, as defined in section 7501(1) of this title, toward attainment by the applicable date.

(2) Not later than 90 days after the date on which a milestone applicable to the area occurs, each State in which all or part of such area is located shall submit to the Administrator a demonstration that all measures in the plan approved under this section have been implemented and that the milestone has been met. A demonstration under this subsection shall be submitted in such form and manner, and shall contain such information and analysis, as the

[1] So in original. Probably should be ''subsection''.

Administrator shall require. The Administrator shall determine whether or not a State's demonstration under this subsection is adequate within 90 days after the Administrator's receipt of a demonstration which contains the information and analysis required by the Administrator.

(3) If a State fails to submit a demonstration under paragraph (2) with respect to a milestone within the required period or if the Administrator determines that the area has not met any applicable milestone, the Administrator shall require the State, within 9 months after such failure or determination to submit a plan revision that assures that the State will achieve the next milestone (or attain the national ambient air quality standard for PM–10, if there is no next milestone) by the applicable date.

(d) Failure to attain

In the case of a Serious PM–10 nonattainment area in which the PM–10 standard is not attained by the applicable attainment date, the State in which such area is located shall, after notice and opportunity for public comment, submit within 12 months after the applicable attainment date, plan revisions which provide for attainment of the PM–10 air quality standard and, from the date of such submission until attainment, for an annual reduction in PM–10 or PM–10 precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area.

(e) PM–10 precursors

The control requirements applicable under plans in effect under this part for major stationary sources of PM–10 shall also apply to major stationary sources of PM–10 precursors, except where the Administrator determines that such sources do not contribute significantly to PM–10 levels which exceed the standard in the area. The Administrator shall issue guidelines regarding the application of the preceding sentence.

(July 14, 1955, ch. 360, title I, §189, as added Pub. L. 101–549, title I, §105(a), Nov. 15, 1990, 104 Stat. 2460.)

§ 7513b. Issuance of RACM and BACM guidance

The Administrator shall issue, in the same manner and according to the same procedure as guidance is issued under section 7408(c) of this title, technical guidance on reasonably available control measures and best available control measures for urban fugitive dust, and emissions from residential wood combustion (including curtailments and exemptions from such curtailments) and prescribed silvicultural and agricultural burning, no later than 18 months following November 15, 1990. The Administrator shall also examine other categories of sources contributing to nonattainment of the PM–10 standard, and determine whether additional guidance on reasonably available control measures and best available control measures is needed, and issue any such guidance no later than 3 years after November 15, 1990. In issuing guidelines and making determinations under this section, the Administrator (in consultation with the State) shall take into account emission reductions achieved, or expected to be achieved, under subchapter IV–A and other provisions of this chapter.

(July 14, 1955, ch. 360, title I, §190, as added Pub. L. 101–549, title I, §105(a), Nov. 15, 1990, 104 Stat. 2462.)

SUBPART 5—ADDITIONAL PROVISIONS FOR AREAS DESIGNATED NONATTAINMENT FOR SULFUR OXIDES, NITROGEN DIOXIDE, OR LEAD

§ 7514. Plan submission deadlines

(a) Submission

Any State containing an area designated or redesignated under section 7407(d) of this title as nonattainment with respect to the national primary ambient air quality standards for sulfur oxides, nitrogen dioxide, or lead subsequent to November 15, 1990, shall submit to the Administrator, within 18 months of the designation, an applicable implementation plan meeting the requirements of this part.

(b) States lacking fully approved State implementation plans

Any State containing an area designated nonattainment with respect to national primary ambient air quality standards for sulfur oxides or nitrogen dioxide under section 7407(d)(1)(C)(i) of this title, but lacking a fully approved implementation plan complying with the requirements of this chapter (including this part) as in effect immediately before November 15, 1990, shall submit to the Administrator, within 18 months of November 15, 1990, an implementation plan meeting the requirements of subpart 1 (except as otherwise prescribed by section 7514a of this title).

(July 14, 1955, ch. 360, title I, §191, as added Pub. L. 101–549, title I, §106, Nov. 15, 1990, 104 Stat. 2463.)

§ 7514a. Attainment dates

(a) Plans under section 7514(a)

Implementation plans required under section 7514(a) of this title shall provide for attainment of the relevant primary standard as expeditiously as practicable but no later than 5 years from the date of the nonattainment designation.

(b) Plans under section 7514(b)

Implementation plans required under section 7514(b) of this title shall provide for attainment of the relevant primary national ambient air quality standard within 5 years after November 15, 1990.

(c) Inadequate plans

Implementation plans for nonattainment areas for sulfur oxides or nitrogen dioxide with plans that were approved by the Administrator before November 15, 1990, but, subsequent to such approval, were found by the Administrator to be substantially inadequate, shall provide for attainment of the relevant primary standard within 5 years from the date of such finding.

(July 14, 1955, ch. 360, title I, §192, as added Pub. L. 101–549, title I, §106, Nov. 15, 1990, 104 Stat. 2463.)

SUBPART 6—SAVINGS PROVISIONS

§ 7515. General savings clause

Each regulation, standard, rule, notice, order and guidance promulgated or issued by the Administrator under this chapter, as in effect before November 15, 1990, shall remain in effect according to its terms, except to the extent otherwise provided under this chapter, inconsistent with any provision of this chapter, or revised by the Administrator. No control requirement in effect, or required to be adopted by an order, settlement agreement, or plan in effect before November 15, 1990, in any area which is a nonattainment area for any air pollutant may be modified after November 15, 1990, in any manner unless the modification insures equivalent or greater emission reductions of such air pollutant.

(July 14, 1955, ch. 360, title I, §193, as added Pub. L. 101–549, title I, §108(*l*), Nov. 15, 1990, 104 Stat. 2469.)

SUBCHAPTER II—EMISSION STANDARDS FOR MOVING SOURCES

PART A—MOTOR VEHICLE EMISSION AND FUEL STANDARDS

§ 7521. Emission standards for new motor vehicles or new motor vehicle engines

(a) Authority of Administrator to prescribe by regulation

Except as otherwise provided in subsection (b)—

(1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d), relating to useful life of vehicles for purposes of certification), whether such vehicles and engines are designed as complete systems or incorporate devices to prevent or control such pollution.

(2) Any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

(3)(A) IN GENERAL.—(i) Unless the standard is changed as provided in subparagraph (B), regulations under paragraph (1) of this subsection applicable to emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, and particulate matter from classes or categories of heavy-duty vehicles or engines manufactured during or after model year 1983 shall contain standards which reflect the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology.

(ii) In establishing classes or categories of vehicles or engines for purposes of regulations under this paragraph, the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, or other appropriate factors.

(B) REVISED STANDARDS FOR HEAVY DUTY TRUCKS.—(i) On the basis of information available to the Administrator concerning the effects of air pollutants emitted from heavy-duty vehicles or engines and from other sources of mobile source related pollutants on the public health and welfare, and taking costs into account, the Administrator may promulgate regulations under paragraph (1) of this subsection revising any standard promulgated under, or before the date of, the enactment of the Clean Air Act Amendments of 1990 (or previously revised under this subparagraph) and applicable to classes or categories of heavy-duty vehicles or engines.

(ii) Effective for the model year 1998 and thereafter, the regulations under paragraph (1) of this subsection applicable to emissions of oxides of nitrogen (NO_x) from gasoline and diesel-fueled heavy duty trucks shall contain standards which provide that such emissions may not exceed 4.0 grams per brake horsepower hour (gbh).

(C) LEAD TIME AND STABILITY.—Any standard promulgated or revised under this paragraph and applicable to classes or categories of heavy-duty vehicles or engines shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated.

(D) REBUILDING PRACTICES.—The Administrator shall study the practice of rebuilding heavy-duty engines and the impact rebuilding has on engine emissions. On the basis of that study and other information available to the Administrator, the Administrator may prescribe requirements to control rebuilding practices, including standards applicable to emissions from any rebuilt heavy-duty engines (whether or not the engine is past its statutory useful life), which in the Administrator's judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare taking costs into account. Any regulation shall take effect after a period the Administrator finds necessary to permit the development and application of the requisite control measures, giving appropriate consideration to the cost of compliance within the period and energy and safety factors.

(E) MOTORCYCLES.—For purposes of this paragraph, motorcycles and motorcycle engines shall be treated in the same manner as heavy-duty vehicles and engines (except as otherwise permitted under section 7525(f)(1)[1] of this title) unless the Administrator promulgates a rule reclassifying motorcycles as light-duty vehicles within the meaning of this section or unless the Administrator promulgates regulations under subsection (a) applying standards applicable to the emission of air pollutants from motorcycles as a separate class or category. In any case in

[1] See References in Text note below.

which such standards are promulgated for such emissions from motorcycles as a separate class or category, the Administrator, in promulgating such standards, shall consider the need to achieve equivalency of emission reductions between motorcycles and other motor vehicles to the maximum extent practicable.

(4)(A) Effective with respect to vehicles and engines manufactured after model year 1978, no emission control device, system, or element of design shall be used in a new motor vehicle or new motor vehicle engine for purposes of complying with requirements prescribed under this subchapter if such device, system, or element of design will cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function.

(B) In determining whether an unreasonable risk exists under subparagraph (A), the Administrator shall consider, among other factors, (i) whether and to what extent the use of any device, system, or element of design causes, increases, reduces, or eliminates emissions of any unregulated pollutants; (ii) available methods for reducing or eliminating any risk to public health, welfare, or safety which may be associated with the use of such device, system, or element of design, and (iii) the availability of other devices, systems, or elements of design which may be used to conform to requirements prescribed under this subchapter without causing or contributing to such unreasonable risk. The Administrator shall include in the consideration required by this paragraph all relevant information developed pursuant to section 7548 of this title.

(5)(A) If the Administrator promulgates final regulations which define the degree of control required and the test procedures by which compliance could be determined for gasoline vapor recovery of uncontrolled emissions from the fueling of motor vehicles, the Administrator shall, after consultation with the Secretary of Transportation with respect to motor vehicle safety, prescribe, by regulation, fill pipe standards for new motor vehicles in order to insure effective connection between such fill pipe and any vapor recovery system which the Administrator determines may be required to comply with such vapor recovery regulations. In promulgating such standards the Administrator shall take into consideration limits on fill pipe diameter, minimum design criteria for nozzle retainer lips, limits on the location of the unleaded fuel restrictors, a minimum access zone surrounding a fill pipe, a minimum pipe or nozzle insertion angle, and such other factors as he deems pertinent.

(B) Regulations prescribing standards under subparagraph (A) shall not become effective until the introduction of the model year for which it would be feasible to implement such standards, taking into consideration the restraints of an adequate leadtime for design and production.

(C) Nothing in subparagraph (A) shall (i) prevent the Administrator from specifying different nozzle and fill neck sizes for gasoline with additives and gasoline without additives or (ii) permit the Administrator to require a specific location, configuration, modeling, or styling of the motor vehicle body with respect to the fuel tank fill neck or fill nozzle clearance envelope.

(D) For the purpose of this paragraph, the term ''fill pipe'' shall include the fuel tank fill pipe, fill neck, fill inlet, and closure.

(6) ONBOARD VAPOR RECOVERY.—Within 1 year after November 15, 1990, the Administrator shall, after consultation with the Secretary of Transportation regarding the safety of vehicle-based (''onboard'') systems for the control of vehicle refueling emissions, promulgate standards under this section requiring that new light-duty vehicles manufactured beginning in the fourth model year after the model year in which the standards are promulgated and thereafter shall be equipped with such systems. The standards required under this paragraph shall apply to a percentage of each manufacturer's fleet of new light-duty vehicles beginning with the fourth model year after the model year in which the standards are promulgated. The percentage shall be as specified in the following table:

IMPLEMENTATION SCHEDULE FOR ONBOARD VAPOR RECOVERY REQUIREMENTS

Model year commencing after standards promulgated	Percentage*
Fourth	40
Fifth	80
After Fifth	100

*Percentages in the table refer to a percentage of the manufacturer's sales volume.

The standards shall require that such systems provide a minimum evaporative emission capture efficiency of 95 percent. The requirements of section 7511a(b)(3) of this title (relating to stage II gasoline vapor recovery) for areas classified under section 7511 of this title as moderate for ozone shall not apply after promulgation of such standards and the Administrator may, by rule, revise or waive the application of the requirements of such section 7511a(b)(3) of this title for areas classified under section 7511 of this title as Serious, Severe, or Extreme for ozone, as appropriate, after such time as the Administrator determines that onboard emissions control systems required under this paragraph are in widespread use throughout the motor vehicle fleet.

(b) Emissions of carbon monoxide, hydrocarbons, and oxides of nitrogen; annual report to Congress; waiver of emission standards; research objectives

(1)(A) The regulations under subsection (a) applicable to emissions of carbon monoxide and hydrocarbons from light-duty vehicles and engines manufactured during model years 1977 through 1979 shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.5 grams per vehicle mile of hydrocarbons and 15.0 grams per vehicle mile of carbon monoxide. The regulations under subsection (a) applicable to emissions of carbon monoxide from light-duty vehicles and engines manufactured during the model year 1980 shall contain standards which provide that such emissions may not exceed 7.0 grams per vehicle mile. The regulations under subsection (a) applicable to emissions of hydrocarbons from light-duty

vehicles and engines manufactured during or after model year 1980 shall contain standards which require a reduction of at least 90 percent from emissions of such pollutant allowable under the standards under this section applicable to light-duty vehicles and engines manufactured in model year 1970. Unless waived as provided in paragraph (5),[1] regulations under subsection (a) applicable to emissions of carbon monoxide from light-duty vehicles and engines manufactured during or after the model year 1981 shall contain standards which require a reduction of at least 90 percent from emissions of such pollutant allowable under the standards under this section applicable to light-duty vehicles and engines manufactured in model year 1970.

(B) The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light-duty vehicles and engines manufactured during model years 1977 through 1980 shall contain standards which provide that such emissions from such vehicles and engines may not exceed 2.0 grams per vehicle mile. The regulations under subsection (a) applicable to emissions of oxides of nitrogen from light-duty vehicles and engines manufactured during the model year 1981 and thereafter shall contain standards which provide that such emissions from such vehicles and engines may not exceed 1.0 gram per vehicle mile. The Administrator shall prescribe standards in lieu of those required by the preceding sentence, which provide that emissions of oxides of nitrogen may not exceed 2.0 grams per vehicle mile for any light-duty vehicle manufactured during model years 1981 and 1982 by any manufacturer whose production, by corporate identity, for calendar year 1976 was less than three hundred thousand light-duty motor vehicles worldwide if the Administrator determines that—

(i) the ability of such manufacturer to meet emission standards in the 1975 and subsequent model years was, and is, primarily dependent upon technology developed by other manufacturers and purchased from such manufacturers; and

(ii) such manufacturer lacks the financial resources and technological ability to develop such technology.

(C) The Administrator may promulgate regulations under subsection (a)(1) revising any standard prescribed or previously revised under this subsection, as needed to protect public health or welfare, taking costs, energy, and safety into account. Any revised standard shall require a reduction of emissions from the standard that was previously applicable. Any such revision under this subchapter may provide for a phase-in of the standard. It is the intent of Congress that the numerical emission standards specified in subsections (a)(3)(B)(ii), (g), (h), and (i) shall not be modified by the Administrator after November 15, 1990, for any model year before the model year 2004.

(2) Emission standards under paragraph (1), and measurement techniques on which such standards are based (if not promulgated prior to November 15, 1990), shall be promulgated by regulation within 180 days after November 15, 1990.

(3) For purposes of this part—

(A)(i) The term ''model year'' with reference to any specific calendar year means the manufacturer's annual production period (as determined by the Administrator) which includes January 1 of such calendar year. If the manufacturer has no annual production period, the term ''model year'' shall mean the calendar year.

(ii) For the purpose of assuring that vehicles and engines manufactured before the beginning of a model year were not manufactured for purposes of circumventing the effective date of a standard required to be prescribed by subsection (b), the Administrator may prescribe regulations defining ''model year'' otherwise than as provided in clause (i).

(B) Repealed. Pub. L. 101–549, title II, § 230(1), Nov. 15, 1990, 104 Stat. 2529.

(C) The term ''heavy duty vehicle'' means a truck, bus, or other vehicle manufactured primarily for use on the public streets, roads, and highways (not including any vehicle operated exclusively on a rail or rails) which has a gross vehicle weight (as determined under regulations promulgated by the Administrator) in excess of six thousand pounds. Such term includes any such vehicle which has special features enabling off-street or off-highway operation and use.

(3)[2] Upon the petition of any manufacturer, the Administrator, after notice and opportunity for public hearing, may waive the standard required under subparagraph (B) of paragraph (1) to not exceed 1.5 grams of oxides of nitrogen per vehicle mile for any class or category of light-duty vehicles or engines manufactured by such manufacturer during any period of up to four model years beginning after the model year 1980 if the manufacturer demonstrates that such waiver is necessary to permit the use of an innovative power train technology, or innovative emission control device or system, in such class or category of vehicles or engines and that such technology or system was not utilized by more than 1 percent of the light-duty vehicles sold in the United States in the 1975 model year. Such waiver may be granted only if the Administrator determines—

(A) that such waiver would not endanger public health,

(B) that there is a substantial likelihood that the vehicles or engines will be able to comply with the applicable standard under this section at the expiration of the waiver, and

(C) that the technology or system has a potential for long-term air quality benefit and has the potential to meet or exceed the average fuel economy standard applicable under the Energy Policy and Conservation Act [42 U.S.C. 6201 et seq.] upon the expiration of the waiver.

No waiver under this subparagraph[3] granted to any manufacturer shall apply to more than 5 percent of such manufacturer's production or

[2] So in original. Probably should be ''(4)''.

[3] So in original. Probably should be ''paragraph''.

more than fifty thousand vehicles or engines, whichever is greater.

(c) Feasibility study and investigation by National Academy of Sciences; reports to Administrator and Congress; availability of information

(1) The Administrator shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive study and investigation of the technological feasibility of meeting the emissions standards required to be prescribed by the Administrator by subsection (b) of this section.

(2) Of the funds authorized to be appropriated to the Administrator by this chapter, such amounts as are required shall be available to carry out the study and investigation authorized by paragraph (1) of this subsection.

(3) In entering into any arrangement with the National Academy of Sciences for conducting the study and investigation authorized by paragraph (1) of this subsection, the Administrator shall request the National Academy of Sciences to submit semiannual reports on the progress of its study and investigation to the Administrator and the Congress, beginning not later than July 1, 1971, and continuing until such study and investigation is completed.

(4) The Administrator shall furnish to such Academy at its request any information which the Academy deems necessary for the purpose of conducting the investigation and study authorized by paragraph (1) of this subsection. For the purpose of furnishing such information, the Administrator may use any authority he has under this chapter (A) to obtain information from any person, and (B) to require such person to conduct such tests, keep such records, and make such reports respecting research or other activities conducted by such person as may be reasonably necessary to carry out this subsection.

(d) Useful life of vehicles

The Administrator shall prescribe regulations under which the useful life of vehicles and engines shall be determined for purposes of subsection (a)(1) of this section and section 7541 of this title. Such regulations shall provide that except where a different useful life period is specified in this subchapter useful life shall—

(1) in the case of light duty vehicles and light duty vehicle engines and light-duty trucks up to 3,750 lbs. LVW and up to 6,000 lbs. GVWR, be a period of use of five years or fifty thousand miles (or the equivalent), whichever first occurs, except that in the case of any requirement of this section which first becomes applicable after November 15, 1990, where the useful life period is not otherwise specified for such vehicles and engines, the period shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs, with testing for purposes of in-use compliance under section 7541 of this title up to (but not beyond) 7 years or 75,000 miles (or the equivalent), whichever first occurs;

(2) in the case of any other motor vehicle or motor vehicle engine (other than motorcycles or motorcycle engines), be a period of use set forth in paragraph (1) unless the Administrator determines that a period of use of greater duration or mileage is appropriate; and

(3) in the case of any motorcycle or motorcycle engine, be a period of use the Administrator shall determine.

(e) New power sources or propulsion systems

In the event of a new power source or propulsion system for new motor vehicles or new motor vehicle engines is submitted for certification pursuant to section 7525(a) of this title, the Administrator may postpone certification until he has prescribed standards for any air pollutants emitted by such vehicle or engine which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger the public health or welfare but for which standards have not been prescribed under subsection (a).

(f)[4] High altitude regulations

(1) The high altitude regulation in effect with respect to model year 1977 motor vehicles shall not apply to the manufacture, distribution, or sale of 1978 and later model year motor vehicles. Any future regulation affecting the sale or distribution of motor vehicles or engines manufactured before the model year 1984 in high altitude areas of the country shall take effect no earlier than model year 1981.

(2) Any such future regulation applicable to high altitude vehicles or engines shall not require a percentage of reduction in the emissions of such vehicles which is greater than the required percentage of reduction in emissions from motor vehicles as set forth in subsection (b). This percentage reduction shall be determined by comparing any proposed high altitude emission standards to high altitude emissions from vehicles manufactured during model year 1970. In no event shall regulations applicable to high altitude vehicles manufactured before the model year 1984 establish a numerical standard which is more stringent than that applicable to vehicles certified under non-high altitude conditions.

(3) Section 7607(d) of this title shall apply to any high altitude regulation referred to in paragraph (2) and before promulgating any such regulation, the Administrator shall consider and make a finding with respect to—

(A) the economic impact upon consumers, individual high altitude dealers, and the automobile industry of any such regulation, including the economic impact which was experienced as a result of the regulation imposed during model year 1977 with respect to high altitude certification requirements;

(B) the present and future availability of emission control technology capable of meeting the applicable vehicle and engine emission requirements without reducing model availability; and

(C) the likelihood that the adoption of such a high altitude regulation will result in any significant improvement in air quality in any area to which it shall apply.

[4] Another subsec. (f) is set out after subsec. (m).

(g) Light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles; standards for model years after 1993

(1) NMHC, CO, and NO_x

Effective with respect to the model year 1994 and thereafter, the regulations under subsection (a) applicable to emissions of nonmethane hydrocarbons (NMHC), carbon monoxide (CO), and oxides of nitrogen (NO_x) from light-duty trucks (LDTs) of up to 6,000 lbs. gross vehicle weight rating (GVWR) and light-duty vehicles (LDVs) shall contain standards which provide that emissions from a percentage of each manufacturer's sales volume of such vehicles and trucks shall comply with the levels specified in table G. The percentage shall be as specified in the implementation schedule below:

TABLE G—EMISSION STANDARDS FOR NMHC, CO, AND NO_x FROM LIGHT-DUTY TRUCKS OF UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Vehicle type	Column A (5 yrs/50,000 mi)			Column B (10 yrs/100,000 mi)		
	NMHC	CO	NO_x	NMHC	CO	NO_x
LDTs (0–3,750 lbs. LVW) and light-duty vehicles	0.25	3.4	0.4*	0.31	4.2	0.6*
LDTs (3,751–5,750 lbs. LVW)	0.32	4.4	0.7**	0.40	5.5	0.97

Standards are expressed in grams per mile (gpm).

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 5 years or 50,000 miles (or the equivalent), whichever first occurs.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs.

*In the case of diesel-fueled LDTs (0–3,750 lvw) and light-duty vehicles, before the model year 2004, in lieu of the 0.4 and 0.6 standards for NO_x, the applicable standards for NO_x shall be 1.0 gpm for a useful life of 5 years or 50,000 miles (or the equivalent), whichever first occurs, and 1.25 gpm for a useful life of 10 years or 100,000 miles (or the equivalent) whichever first occurs.

**This standard does not apply to diesel-fueled LDTs (3,751–5,750 lbs. LVW).

IMPLEMENTATION SCHEDULE FOR TABLE G STANDARDS

Model year	Percentage*
1994	40
1995	80
after 1995	100

*Percentages in the table refer to a percentage of each manufacturer's sales volume.

(2) PM Standard

Effective with respect to model year 1994 and thereafter in the case of light-duty vehicles, and effective with respect to the model year 1995 and thereafter in the case of light-duty trucks (LDTs) of up to 6,000 lbs. gross vehicle weight rating (GVWR), the regulations under subsection (a) applicable to emissions of particulate matter (PM) from such vehicles and trucks shall contain standards which provide that such emissions from a percentage of each manufacturer's sales volume of such vehicles and trucks shall not exceed the levels specified in the table below. The percentage shall be as specified in the Implementation Schedule below.

PM STANDARD FOR LDTS OF UP TO 6,000 LBS. GVWR

Useful life period	Standard
5/50,000	0.08 gpm
10/100,000	0.10 gpm

The applicable useful life, for purposes of certification under section 7525 of this title and for purposes of in-use compliance under section 7541 of this title, shall be 5 years or 50,000 miles (or the equivalent), whichever first occurs, in the case of the 5/50,000 standard.

The applicable useful life, for purposes of certification under section 7525 of this title and for purposes of in-use compliance under section 7541 of this title, shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs in the case of the 10/100,000 standard.

IMPLEMENTATION SCHEDULE FOR PM STANDARDS

Model year	Light-duty vehicles	LDTs
1994	40%*	
1995	80%*	40%*
1996	100%*	80%*
after 1996	100%*	100%*

*Percentages in the table refer to a percentage of each manufacturer's sales volume.

(h) Light-duty trucks of more than 6,000 lbs. GVWR; standards for model years after 1995

Effective with respect to the model year 1996 and thereafter, the regulations under subsection (a) applicable to emissions of nonmethane hydrocarbons (NMHC), carbon monoxide (CO), oxides of nitrogen (NO_x), and particulate matter (PM) from light-duty trucks (LDTs) of more than 6,000 lbs. gross vehicle weight rating (GVWR) shall contain standards which provide that emissions from a specified percentage of each manufacturer's sales volume of such trucks shall comply with the levels specified in table H. The specified percentage shall be 50 percent in model year 1996 and 100 percent thereafter.

TABLE H—EMISSION STANDARDS FOR NMHC AND CO FROM GASOLINE AND DIESEL FUELED LIGHT-DUTY TRUCKS OF MORE THAN 6,000 LBS. GVWR

LDT Test weight	Column A (5 yrs/50,000 mi)			Column B (11 yrs/120,000 mi)			
	NMHC	CO	NO_x	NMHC	CO	NO_x	PM
3,751–5,750 lbs. TW	0.32	4.4	0.7*	0.46	6.4	0.98	0.10
Over 5,750 lbs. TW	0.39	5.0	1.1*	0.56	7.3	1.53	0.12

Standards are expressed in grams per mile (GPM).

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 5 years or 50,000 miles (or the equivalent) whichever first occurs.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 11 years or 120,000 miles (or the equivalent), whichever first occurs.

*Not applicable to diesel-fueled LDTs.

(i) Phase II study for certain light-duty vehicles and light-duty trucks

(1) The Administrator, with the participation of the Office of Technology Assessment, shall study whether or not further reductions in emissions from light-duty vehicles and light-duty trucks should be required pursuant to this subchapter. The study shall consider whether to establish with respect to model years commencing after January 1, 2003, the standards and useful life period for gasoline and diesel-fueled light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less specified in the following table:

TABLE 3—PENDING EMISSION STANDARDS FOR GASOLINE AND DIESEL FUELED LIGHT-DUTY VEHICLES AND LIGHT-DUTY TRUCKS 3,750 LBS. LVW OR LESS

Pollutant	Emission level*
NMHC	0.125 GPM
NO_x	0.2 GPM
CO	1.7 GPM

*Emission levels are expressed in grams per mile (GPM). For vehicles and engines subject to this subsection for purposes of subsection (d) and any reference thereto, the useful life of such vehicles and engines shall be a period of 10 years or 100,000 miles (or the equivalent), whichever first occurs.

Such study shall also consider other standards and useful life periods which are more stringent or less stringent than those set forth in table 3 (but more stringent than those referred to in subsections (g) and (h)).

(2)(A) As part of the study under paragraph (1), the Administrator shall examine the need for further reductions in emissions in order to attain or maintain the national ambient air quality standards, taking into consideration the waiver provisions of section 7543(b) of this title. As part of such study, the Administrator shall also examine—

(i) the availability of technology (including the costs thereof), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for meeting more stringent emission standards than those provided in subsections (g) and (h) for model years commencing not earlier than after January 1, 2003, and not later than model year 2006, including the lead time and safety and energy impacts of meeting more stringent emission standards; and

(ii) the need for, and cost effectiveness of, obtaining further reductions in emissions from such light-duty vehicles and light-duty trucks, taking into consideration alternative means of attaining or maintaining the national primary ambient air quality standards pursuant to State implementation plans and other requirements of this chapter, including their feasibility and cost effectiveness.

(B) The Administrator shall submit a report to Congress no later than June 1, 1997, containing the results of the study under this subsection, including the results of the examination conducted under subparagraph (A). Before submittal of such report the Administrator shall provide a reasonable opportunity for public comment and shall include a summary of such comments in the report to Congress.

(3)(A) Based on the study under paragraph (1) the Administrator shall determine, by rule, within 3 calendar years after the report is submitted to Congress, but not later than December 31, 1999, whether—

(i) there is a need for further reductions in emissions as provided in paragraph (2)(A);

(ii) the technology for meeting more stringent emission standards will be available, as provided in paragraph (2)(A)(i), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for model years commencing not earlier than January 1, 2003, and not later than model year 2006, considering the factors listed in paragraph (2)(A)(i); and

(iii) obtaining further reductions in emissions from such vehicles will be needed and cost effective, taking into consideration alternatives as provided in paragraph (2)(A)(ii).

The rulemaking under this paragraph shall commence within 3 months after submission of the report to Congress under paragraph (2)(B).

(B) If the Administrator determines under subparagraph (A) that—

(i) there is no need for further reductions in emissions as provided in paragraph (2)(A);

(ii) the technology for meeting more stringent emission standards will not be available as provided in paragraph (2)(A)(i), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for model years commencing not earlier than January 1, 2003, and not later than model year 2006, considering the factors listed in paragraph (2)(A)(i); or

(iii) obtaining further reductions in emissions from such vehicles will not be needed or

cost effective, taking into consideration alternatives as provided in paragraph (2)(A)(ii),

the Administrator shall not promulgate more stringent standards than those in effect pursuant to subsections (g) and (h). Nothing in this paragraph shall prohibit the Administrator from exercising the Administrator's authority under subsection (a) to promulgate more stringent standards for light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less at any other time thereafter in accordance with subsection (a).

(C) If the Administrator determines under subparagraph (A) that—

(i) there is a need for further reductions in emissions as provided in paragraph (2)(A);

(ii) the technology for meeting more stringent emission standards will be available, as provided in paragraph (2)(A)(i), in the case of light-duty vehicles and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 lbs. or less, for model years commencing not earlier than January 1, 2003, and not later than model year 2006, considering the factors listed in paragraph (2)(A)(i); and

(iii) obtaining further reductions in emissions from such vehicles will be needed and cost effective, taking into consideration alternatives as provided in paragraph (2)(A)(ii),

the Administrator shall either promulgate the standards (and useful life periods) set forth in Table 3 in paragraph (1) or promulgate alternative standards (and useful life periods) which are more stringent than those referred to in subsections (g) and (h). Any such standards (or useful life periods) promulgated by the Administrator shall take effect with respect to any such vehicles or engines no earlier than the model year 2003 but not later than model year 2006, as determined by the Administrator in the rule.

(D) Nothing in this paragraph shall be construed by the Administrator or by a court as a presumption that any standards (or useful life period) set forth in Table 3 shall be promulgated in the rulemaking required under this paragraph. The action required of the Administrator in accordance with this paragraph shall be treated as a nondiscretionary duty for purposes of section 7604(a)(2) of this title (relating to citizen suits).

(E) Unless the Administrator determines not to promulgate more stringent standards as provided in subparagraph (B) or to postpone the effective date of standards referred to in Table 3 in paragraph (1) or to establish alternative standards as provided in subparagraph (C), effective with respect to model years commencing after January 1, 2003, the regulations under subsection (a) applicable to emissions of nonmethane hydrocarbons (NMHC), oxides of nitrogen (NO_x), and carbon monoxide (CO) from motor vehicles and motor vehicle engines in the classes specified in Table 3 in paragraph (1) above shall contain standards which provide that emissions may not exceed the pending emission levels specified in Table 3 in paragraph (1).

(j) Cold CO standard

(1) Phase I

Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations under subsection (a) of this section applicable to emissions of carbon monoxide from 1994 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit. The regulations shall contain standards which provide that emissions of carbon monoxide from a manufacturer's vehicles when operated at 20 degrees Fahrenheit may not exceed, in the case of light-duty vehicles, 10.0 grams per mile, and in the case of light-duty trucks, a level comparable in stringency to the standard applicable to light-duty vehicles. The standards shall take effect after model year 1993 according to a phase-in schedule which requires a percentage of each manufacturer's sales volume of light-duty vehicles and light-duty trucks to comply with applicable standards after model year 1993. The percentage shall be as specified in the following table:

PHASE-IN SCHEDULE FOR COLD START STANDARDS

Model Year	Percentage
1994	40
1995	80
1996 and after	100

(2) Phase II

(A) Not later than June 1, 1997, the Administrator shall complete a study assessing the need for further reductions in emissions of carbon monoxide and the maximum reductions in such emissions achievable from model year 2001 and later model year light-duty vehicles and light-duty trucks when operated at 20 degrees Fahrenheit.

(B)(i) If as of June 1, 1997, 6 or more nonattainment areas have a carbon monoxide design value of 9.5 ppm or greater, the regulations under subsection (a)(1) of this section applicable to emissions of carbon monoxide from model year 2002 and later model year light-duty vehicles and light-duty trucks shall contain standards which provide that emissions of carbon monoxide from such vehicles and trucks when operated at 20 degrees Fahrenheit may not exceed 3.4 grams per mile (gpm) in the case of light-duty vehicles and 4.4 grams per mile (gpm) in the case of light-duty trucks up to 6,000 GVWR and a level comparable in stringency in the case of light-duty trucks 6,000 GVWR and above.

(ii) In determining for purposes of this subparagraph whether 6 or more nonattainment areas have a carbon monoxide design value of 9.5 ppm or greater, the Administrator shall exclude the areas of Steubenville, Ohio, and Oshkosh, Wisconsin.

(3) Useful-life for phase I and phase II standards

In the case of the standards referred to in paragraphs (1) and (2), for purposes of certification under section 7525 of this title and in-use compliance under section 7541 of this title, the applicable useful life period shall be 5 years or 50,000 miles, whichever first occurs, except that the Administrator may extend such useful life period (for purposes of section 7525 of this title, or section 7541 of this title,

or both) if he determines that it is feasible for vehicles and engines subject to such standards to meet such standards for a longer useful life. If the Administrator extends such useful life period, the Administrator may make an appropriate adjustment of applicable standards for such extended useful life. No such extended useful life shall extend beyond the useful life period provided in regulations under subsection (d).

(4) Heavy-duty vehicles and engines

The Administrator may also promulgate regulations under subsection (a)(1) applicable to emissions of carbon monoxide from heavy-duty vehicles and engines when operated at cold temperatures.

(k) Control of evaporative emissions

The Administrator shall promulgate (and from time to time revise) regulations applicable to evaporative emissions of hydrocarbons from all gasoline-fueled motor vehicles—

(1) during operation; and

(2) over 2 or more days of nonuse;

under ozone-prone summertime conditions (as determined by regulations of the Administrator). The regulations shall take effect as expeditiously as possible and shall require the greatest degree of emission reduction achievable by means reasonably expected to be available for production during any model year to which the regulations apply, giving appropriate consideration to fuel volatility, and to cost, energy, and safety factors associated with the application of the appropriate technology. The Administrator shall commence a rulemaking under this subsection within 12 months after November 15, 1990. If final regulations are not promulgated under this subsection within 18 months after November 15, 1990, the Administrator shall submit a statement to the Congress containing an explanation of the reasons for the delay and a date certain for promulgation of such final regulations in accordance with this chapter. Such date certain shall not be later than 15 months after the expiration of such 18 month deadline.

***(l)* Mobile source-related air toxics**

(1) Study

Not later than 18 months after November 15, 1990, the Administrator shall complete a study of the need for, and feasibility of, controlling emissions of toxic air pollutants which are unregulated under this chapter and associated with motor vehicles and motor vehicle fuels, and the need for, and feasibility of, controlling such emissions and the means and measures for such controls. The study shall focus on those categories of emissions that pose the greatest risk to human health or about which significant uncertainties remain, including emissions of benzene, formaldehyde, and 1,3 butadiene. The proposed report shall be available for public review and comment and shall include a summary of all comments.

(2) Standards

Within 54 months after November 15, 1990, the Administrator shall, based on the study under paragraph (1), promulgate (and from time to time revise) regulations under subsection (a)(1) or section 7545(c)(1) of this title containing reasonable requirements to control hazardous air pollutants from motor vehicles and motor vehicle fuels. The regulations shall contain standards for such fuels or vehicles, or both, which the Administrator determines reflect the greatest degree of emission reduction achievable through the application of technology which will be available, taking into consideration the standards established under subsection (a), the availability and costs of the technology, and noise, energy, and safety factors, and lead time. Such regulations shall not be inconsistent with standards under subsection (a). The regulations shall, at a minimum, apply to emissions of benzene and formaldehyde.

(m) Emissions control diagnostics

(1) Regulations

Within 18 months after November 15, 1990, the Administrator shall promulgate regulations under subsection (a) requiring manufacturers to install on all new light duty vehicles and light duty trucks diagnostics systems capable of—

(A) accurately identifying for the vehicle's useful life as established under this section, emission-related systems deterioration or malfunction, including, at a minimum, the catalytic converter and oxygen sensor, which could cause or result in failure of the vehicles to comply with emission standards established under this section,

(B) alerting the vehicle's owner or operator to the likely need for emission-related components or systems maintenance or repair,

(C) storing and retrieving fault codes specified by the Administrator, and

(D) providing access to stored information in a manner specified by the Administrator.

The Administrator may, in the Administrator's discretion, promulgate regulations requiring manufacturers to install such onboard diagnostic systems on heavy-duty vehicles and engines.

(2) Effective date

The regulations required under paragraph (1) of this subsection shall take effect in model year 1994, except that the Administrator may waive the application of such regulations for model year 1994 or 1995 (or both) with respect to any class or category of motor vehicles if the Administrator determines that it would be infeasible to apply the regulations to that class or category in such model year or years, consistent with corresponding regulations or policies adopted by the California Air Resources Board for such systems.

(3) State inspection

The Administrator shall by regulation require States that have implementation plans containing motor vehicle inspection and maintenance programs to amend their plans within 2 years after promulgation of such regulations to provide for inspection of onboard diagnostics systems (as prescribed by regulations

under paragraph (1) of this subsection) and for the maintenance or repair of malfunctions or system deterioration identified by or affecting such diagnostics systems. Such regulations shall not be inconsistent with the provisions for warranties promulgated under section 7541(a) and (b) of this title.

(4) Specific requirements

In promulgating regulations under this subsection, the Administrator shall require—

(A) that any connectors through which the emission control diagnostics system is accessed for inspection, diagnosis, service, or repair shall be standard and uniform on all motor vehicles and motor vehicle engines;

(B) that access to the emission control diagnostics system through such connectors shall be unrestricted and shall not require any access code or any device which is only available from a vehicle manufacturer; and

(C) that the output of the data from the emission control diagnostics system through such connectors shall be usable without the need for any unique decoding information or device.

(5) Information availability

The Administrator, by regulation, shall require (subject to the provisions of section 7542(c) of this title regarding the protection of methods or processes entitled to protection as trade secrets) manufacturers to provide promptly to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines, and the Administrator for use by any such persons, with any and all information needed to make use of the emission control diagnostics system prescribed under this subsection and such other information including instructions for making emission related diagnosis and repairs. No such information may be withheld under section 7542(c) of this title if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines. Such information shall also be available to the Administrator, subject to section 7542(c) of this title, in carrying out the Administrator's responsibilities under this section.

(f)[5] Model years after 1990

For model years prior to model year 1994, the regulations under subsection (a) applicable to buses other than those subject to standards under section 7554 of this title shall contain a standard which provides that emissions of particulate matter (PM) from such buses may not exceed the standards set forth in the following table:

PM STANDARD FOR BUSES

Model year	Standard*
1991	0.25
1992	0.25
1993 and thereafter	0.10

*Standards are expressed in grams per brake horsepower hour (g/bhp/hr).

[5] So in original. Probably should be ''(n)''.

(July 14, 1955, ch. 360, title II, § 202, as added Pub. L. 89–272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 499; Pub. L. 91–604, § 6(a), Dec. 31, 1970, 84 Stat. 1690; Pub. L. 93–319, § 5, June 22, 1974, 88 Stat. 258; Pub. L. 95–95, title II, §§ 201, 202(b), 213(b), 214(a), 215–217, 224(a), (b), (g), title IV, § 401(d), Aug. 7, 1977, 91 Stat. 751–753, 758–761, 765, 767, 769, 791; Pub. L. 95–190, § 14(a)(60)–(65), (b)(5), Nov. 16, 1977, 91 Stat. 1403, 1405; Pub. L. 101–549, title II, §§ 201–207, 227(b), 230(1)–(5), Nov. 15, 1990, 104 Stat. 2472–2481, 2507, 2529.)

REFERENCES IN TEXT

The enactment of the Clean Air Act Amendments of 1990, referred to in subsec. (a)(3)(B), probably means the enactment of Pub. L. 101–549, Nov. 15, 1990, 104 Stat. 2399, which was approved Nov. 15, 1990. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

Section 7525(f)(1) of this title, referred to in subsec. (a)(3)(E), was redesignated section 7525(f) of this title by Pub. L. 101–549, title II, § 230(8), Nov. 15, 1990, 104 Stat. 2529.

Paragraph (5) of subsec. (b), referred to in subsec. (b)(1)(A), related to waivers for model years 1981 and 1982, and was repealed by Pub. L. 101–549, title II, § 230(3), Nov. 15, 1990, 104 Stat. 2529. See 1990 Amendment note below.

The Energy Policy and Conservation Act, referred to in subsec. (b)(3)(C), is Pub. L. 94–163, Dec. 22, 1975, 89 Stat. 871, as amended, which is classified principally to chapter 77 (§ 6201 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6201 of this title and Tables.

CODIFICATION

Section was formerly classified to section 1857f–1 of this title.

AMENDMENTS

1990—Subsec. (a)(3)(A). Pub. L. 101–549, § 201(1), added subpar. (A) and struck out former subpar. (A) which related to promulgation of regulations applicable to reduction of emissions from heavy-duty vehicles or engines manufactured during and after model year 1979 in the case of carbon monoxide, hydrocarbons, and oxides of nitrogen, and from vehicles manufactured during and after model year 1981 in the case of particulate matter.

Subsec. (a)(3)(B). Pub. L. 101–549, § 201(1), added subpar. (B) and struck out former subpar. (B) which read as follows: ''During the period of June 1 through December 31, 1978, in the case of hydrocarbons and carbon monoxide, or during the period of June 1 through December 31, 1980, in the case of oxides of nitrogen, and during each period of June 1 through December 31 of each third year thereafter, the Administrator may, after notice and opportunity for a public hearing promulgate regulations revising any standard prescribed as provided in subparagraph (A)(ii) for any class or category of heavy-duty vehicles or engines. Such standard shall apply only for the period of three model years beginning four model years after the model year in which such revised standard is promulgated. In revising any standard under this subparagraph for any such three model year period, the Administrator shall determine the maximum degree of emission reduction which can be achieved by means reasonably expected to be available for production of such period and shall prescribe a revised emission standard in accordance with such determination. Such revised standard shall require a reduction of emissions from any standard which applies in the previous model year.''

Subsec. (a)(3)(C). Pub. L. 101–549, § 201(1), added subpar. (C) and struck out former subpar. (C) which read as follows: ''Action revising any standard for any period may be taken by the Administrator under subparagraph (B) only if he finds—

''(i) that compliance with the emission standards otherwise applicable for such model year cannot be achieved by technology, processes, operating methods, or other alternatives reasonably expected to be available for production for such model year without increasing cost or decreasing fuel economy to an excessive and unreasonable degree; and

''(ii) the National Academy of Sciences has not, pursuant to its study and investigation under subsection (c), issued a report substantially contrary to the findings of the Administrator under clause (i).''

Subsec. (a)(3)(D). Pub. L. 101–549, §201(1), added subpar. (D) and struck out former subpar. (D) which read as follows: ''A report shall be made to the Congress with respect to any standard revised under subparagraph (B) which shall contain—

''(i) a summary of the health effects found, or believed to be associated with, the pollutant covered by such standard,

''(ii) an analysis of the cost-effectiveness of other strategies for attaining and maintaining national ambient air quality standards and carrying out regulations under part C of subchapter I (relating to significant deterioration) in relation to the cost-effectiveness for such purposes of standards which, but for such revision, would apply.

''(iii) a summary of the research and development efforts and progress being made by each manufacturer for purposes of meeting the standards promulgated as provided in subparagraph (A)(ii) or, if applicable, subparagraph (E), and

''(iv) specific findings as to the relative costs of compliance, and relative fuel economy, which may be expected to result from the application for any model year of such revised standard and the application for such model year of the standard, which, but for such revision, would apply.''

Subsec. (a)(3)(E), (F). Pub. L. 101–549, §201, redesignated subpar. (F) as (E), inserted heading, and struck out former subpar. (E) which read as follows:

''(i) The Administrator shall conduct a continuing pollutant-specific study concerning the effects of each air pollutant emitted from heavy-duty vehicles or engines and from other sources of mobile source related pollutants on the public health and welfare. The results of such study shall be published in the Federal Register and reported to the Congress not later than June 1, 1978, in the case of hydrocarbons and carbon monoxide, and June 1, 1980, in the case of oxides of nitrogen, and before June 1 of each third year thereafter.

''(ii) On the basis of such study and such other information as is available to him (including the studies under section 7548 of this title), the Administrator may, after notice and opportunity for a public hearing, promulgate regulations under paragraph (1) of this subsection changing any standard prescribed in subparagraph (A)(ii) (or revised under subparagraph (B) or previously changed under this subparagraph). No such changed standard shall apply for any model year before the model year four years after the model year during which regulations containing such changed standard are promulgated.''

Subsec. (a)(4)(A), (B). Pub. L. 101–549, §227(b), substituted ''requirements prescribed under this subchapter'' for ''standards prescribed under this subsection''.

Subsec. (a)(6). Pub. L. 101–549, §202, amended par. (6) generally. Prior to amendment, par. (6) read as follows: ''The Administrator shall determine the feasibility and desirability of requiring new motor vehicles to utilize onboard hydrocarbon control technology which would avoid the necessity of gasoline vapor recovery of uncontrolled emissions emanating from the fueling of motor vehicles. The Administrator shall compare the costs and effectiveness of such technology to that of implementing and maintaining vapor recovery systems (taking into consideration such factors as fuel economy, economic costs of such technology, administrative burdens, and equitable distribution of costs). If the Administrator finds that it is feasible and desirable to employ such technology, he shall, after consultation with the Secretary of Transportation with respect to motor vehicle safety, prescribe, by regulation, standards requiring the use of onboard hydrocarbon technology which shall not become effective until the introduction to the model year for which it would be feasible to implement such standards, taking into consideration compliance costs and the restraints of an adequate lead time for design and production.''

Subsec. (b)(1)(C). Pub. L. 101–549, §203(c), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: ''Effective with respect to vehicles and engines manufactured after model year 1978 (or in the case of heavy-duty vehicles or engines, such later model year as the Administrator determines is the earliest feasible model year), the test procedure promulgated under paragraph (2) for measurement of evaporative emissions of hydrocarbons shall require that such emissions be measured from the vehicle or engine as a whole. Regulations to carry out this subparagraph shall be promulgated not later than two hundred and seventy days after August 7, 1977.''

Subsec. (b)(2). Pub. L. 101–549, §203(d), amended par. (2) generally. Prior to amendment, par. (2) read as follows: ''Emission standards under paragraph (1), and measurement techniques on which such standards are based (if not promulgated prior to December 31, 1970), shall be prescribed by regulation within 180 days after such date.''

Subsec. (b)(3). Pub. L. 101–549, §230(4), redesignated par. (6) relating to waiver of standards for oxides of nitrogen as par. (3), struck out subpar. (A) designation before ''Upon the petition'', redesignated former cls. (i) to (iii) as subpars. (A) to (C), respectively, and struck out former subpar. (B) which authorized the Administrator to waive the standard under subsec. (b)(1)(B) of this section for emissions of oxides of nitrogen from light-duty vehicles and engines beginning in model year 1981 after providing notice and opportunity for a public hearing, and set forth conditions under which a waiver could be granted.

Subsec. (b)(3)(B). Pub. L. 101–549, §230(1), in the par. (3) defining terms for purposes of this part struck out subpar. (B) which defined ''light duty vehicles and engines''.

Subsec. (b)(4). Pub. L. 101–549, §230(2), struck out par. (4) which read as follows: ''On July 1 of 1971, and of each year thereafter, the Administrator shall report to the Congress with respect to the development of systems necessary to implement the emission standards established pursuant to this section. Such reports shall include information regarding the continuing effects of such air pollutants subject to standards under this section on the public health and welfare, the extent and progress of efforts being made to develop the necessary systems, the costs associated with development and application of such systems, and following such hearings as he may deem advisable, any recommendations for additional congressional action necessary to achieve the purposes of this chapter. In gathering information for the purposes of this paragraph and in connection with any hearing, the provisions of section 7607(a) of this title (relating to subpenas) shall apply.''

Subsec. (b)(5). Pub. L. 101–549, §230(3), struck out par. (5) which related to waivers for model years 1981 and 1982 of the effective date of the emissions standard required under par. (1)(A) for carbon monoxide applicable to light-duty vehicles and engines manufactured in those model years.

Subsec. (b)(6). Pub. L. 101–549, §230(4), redesignated par. (6) as (3).

Subsec. (b)(7). Pub. L. 101–549, §230(5), struck out par. (7) which read as follows: ''The Congress hereby declares and establishes as a research objective, the development of propulsion systems and emission control technology to achieve standards which represent a reduction of at least 90 per centum from the average emissions of oxides of nitrogen actually measured from light duty motor vehicles manufactured in model year 1971 not subject to any Federal or State emission

standard for oxides of nitrogen. The Administrator shall, by regulations promulgated within one hundred and eighty days after August 7, 1977, require each manufacturer whose sales represent at least 0.5 per centum of light duty motor vehicle sales in the United States, to build and, on a regular basis, demonstrate the operation of light duty motor vehicles that meet this research objective, in addition to any other applicable standards or requirements for other pollutants under this chapter. Such demonstration vehicles shall be submitted to the Administrator no later than model year 1979 and in each model year thereafter. Such demonstration shall, in accordance with applicable regulations, to the greatest extent possible, (A) be designed to encourage the development of new powerplant and emission control technologies that are fuel efficient, (B) assure that the demonstration vehicles are or could reasonably be expected to be within the productive capability of the manufacturers, and (C) assure the utilization of optimum engine, fuel, and emission control systems.''

Subsec. (d). Pub. L. 101–549, §203(b)(1), substituted ''provide that except where a different useful life period is specified in this subchapter'' for ''provide that''.

Subsec. (d)(1). Pub. L. 101–549, §203(b)(2), (3), inserted ''and light-duty trucks up to 3,750 lbs. LVW and up to 6,000 lbs. GVWR'' after ''engines'' and substituted for semicolon at end '', except that in the case of any requirement of this section which first becomes applicable after November 15, 1990, where the useful life period is not otherwise specified for such vehicles and engines, the period shall be 10 years or 100,000 miles (or the equivalent), whichever first occurs, with testing for purposes of in-use compliance under section 7541 of this title up to (but not beyond) 7 years or 75,000 miles (or the equivalent), whichever first occurs;''.

Subsec. (f). Pub. L. 101–549, §207(b), added (after subsec. (m) at end) subsec. (f) relating to regulations applicable to buses for model years after 1990.

Subsecs. (g) to (i). Pub. L. 101–549, §203(a), added subsecs. (g) to (i).

Subsecs. (j) to (m). Pub. L. 101–549, §§204–207(a), added subsecs. (j) to (m).

1977—Subsec. (a)(1). Pub. L. 95–190, §14(a)(60), restructured subsec. (a) by providing for designation of par. (1) to precede ''The Administrator'' in place of ''Except as''.

Pub. L. 95–95, §401(d)(1), substituted ''Except as otherwise provided in subsection (b) the Administrator'' for ''The Administrator'', ''cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare'' for ''causes or contributes to, or is likely to cause or contribute to, air pollution which endangers the public health or welfare'', and ''useful life (as determined under subsection (d), relating to useful life of vehicles for purposes of certification), whether such vehicles and engines are designed as complete systems or incorporate devices'' for ''useful life (as determined under subsection (d)) whether such vehicles and engines are designed as complete systems or incorporated devices''.

Subsec. (a)(2). Pub. L. 95–95, §214(a), substituted ''prescribed under paragraph (1) of this subsection'' for ''prescribed under this subsection''.

Subsec. (a)(3). Pub. L. 95–95, §224(a), added par. (3).

Subsec. (a)(3)(B). Pub. L. 95–190, §14(a)(61), (62), substituted provisions setting forth applicable periods of from June 1 through Dec. 31, 1978, June 1 through Dec. 31, 1980, and during each period of June 1 through Dec. 31 of each third year thereafter, for provisions setting forth applicable periods of from June 1 through Dec. 31, 1979, and during each period of June 1 through Dec. 31 of each third year after 1979, and substituted ''from any'' for ''of from any''.

Subsec. (a)(3)(E). Pub. L. 95–190, §14(a)(63), substituted ''1978, in the case of hydrocarbons and carbon monoxide, and June 1, 1980, in the case of oxides of nitrogen'' for ''1979,''.

Subsec. (a)(4). Pub. L. 95–95, §214(a), added par. (4).

Subsec. (a)(5). Pub. L. 95–95, §215, added par. (5).

Subsec. (a)(6). Pub. L. 95–95, §216, added par. (6).

Subsec. (b)(1)(A). Pub. L. 95–95, §201(a), substituted provisions setting the standards for emissions from light-duty vehicles and engines manufactured during the model years 1977 through 1980 for provisions which had set the standards for emissions from light-duty vehicles and engines manufactured during the model years 1975 and 1976, substituted ''model year 1980'' for ''model year 1977'' in provisions requiring a reduction of at least 90 per centum from the emissions allowable under standards for model year 1970, and inserted provisions that, unless waived as provided in par. (5), the standards for vehicles and engines manufactured during or after the model year 1981 represent a reduction of at least 90 per centum from the emissions allowable under standards for model year 1970.

Subsec. (b)(1)(B). Pub. L. 95–190, §14(a)(64), (65), substituted ''calendar year 1976'' for ''model year 1976'' and in cl. (i) substituted ''other'' for ''United States''.

Pub. L. 95–95, §201(b), substituted provisions setting the standards for emissions from light-duty vehicles and engines manufactured during the model years 1977 through 1980 for provisions which had set the standards for emissions from light-duty vehicles and engines manufactured during the model years 1975 through 1977, substituted provisions that the standards for model years 1981 and after allow emissions of no more than 1.0 gram per vehicle mile for provisions that the standards for model year 1978 and after require a reduction of at least 90 per centum from the average of emissions actually measured from light-duty vehicles manufactured during model year 1971 which were not subject to any Federal or State emission standards for oxides of nitrogen, and inserted provisions directing the Administrator to prescribe separate standards for model years 1981 and 1982 for manufacturers whose production, by corporate identity, for model year 1976 was less than three hundred thousand light-duty motor vehicles worldwide if the manufacturer's capability to meet emission standards depends upon United States technology and if the manufacturer cannot develop one.

Subsec. (b)(1)(C). Pub. L. 95–95, §217, added subpar. (C).

Subsec. (b)(3)(C). Pub. L. 95–95, §224(b), added subpar. (C).

Subsec. (b)(5). Pub. L. 95–95, §201(c), substituted provisions setting up a procedure under which a manufacturer may apply for a waiver for model years 1981 and 1982 of the effective date of the emission standards for carbon monoxide required by par. (1)(A) for provisions which had set up a procedure under which a manufacturer, after Jan. 1, 1975, could apply for a one-year suspension of the effective date of any emission standard required by par. (1)(A) for model year 1977.

Subsec. (b)(6). Pub. L. 95–95, §201(c), added par. (6).

Subsec. (b)(7). Pub. L. 95–95, §202(b), added par. (7).

Subsec. (d)(2). Pub. L. 95–95, §224(g), as amended by Pub. L. 95–190, §14(b)(5), to correct typographical error in directory language, inserted ''(other than motorcycles or motorcycle engines)'' after ''motor vehicle or motor vehicle engine''.

Subsec. (d)(3). Pub. L. 95–95, §224(g), added par. (3).

Subsec. (e). Pub. L. 95–95, §401(d)(2), substituted ''which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger'' for ''which cause or contribute to, or are likely to cause or contribute to, air pollution which endangers''.

Subsec. (f). Pub. L. 95–95, §213(b), added subsec. (f).

1974—Subsec. (b)(1)(A). Pub. L. 93–319, §5(a), substituted ''model year 1977'' for ''model year 1975'' in provisions requiring a reduction of at least 90 per centum from the emissions allowable under standards for model year 1970 and inserted provisions covering regulations for model years 1975 and 1976.

Subsec. (b)(1)(B). Pub. L. 93–319, §5(b), substituted ''model year 1978'' for ''model year 1976'' in provisions requiring a reduction of at least 90 per centum from the average of emissions actually measured from vehicles manufactured during model year 1971 and inserted provisions covering regulations for model years 1975, 1976, and 1977.

Subsec. (b)(5). Pub. L. 93–319, §5(c), (d), substituted in subpar. (A), ''At any time after January 1, 1975'' for ''At any time after January 1, 1972'', ''with respect to such manufacturer for light-duty vehicles and engines manufactured in model year 1977'' for ''with respect to such manufacturer'', ''sixty days'' for ''60 days'', ''paragraph (1)(A) of this subsection'' for ''paragraph (1)(A)'', and ''vehicles and engines manufactured during model year 1977'' for ''vehicles and engines manufactured during model year 1975'', redesignated subpars. (C) to (E) as (B) to (D), respectively, and struck out former subpar. (B) which had allowed manufacturers, at any time after Jan. 1, 1973, to file with the Administrator an application requesting a 1-year suspension of the effective date of any emission standard required by subsec. (b)(1)(B) with respect to such manufacturer.

1970—Subsec. (a). Pub. L. 91–604 redesignated existing provisions as par. (1), substituted Administrator for Secretary as the issuing authority for standards, inserted references to the useful life of engines, and substituted the emission of any air pollutant for the emission of any kind of substance as the subject to be regulated, and added par. (2).

Subsec. (b). Pub. L. 91–604 added subsec. (b). Former subsec. (b) redesignated as par. (2) of subsec. (a).

Subsecs. (c) to (e). Pub. L. 91–604 added subsecs. (c) to (e).

1967—Pub. L. 90–148 reenacted section without change.

Effective Date of 1977 Amendment

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

Modification or Rescission of Rules, Regulations, Orders, Determinations, Contracts, Certifications, Authorizations, Delegations, and Other Actions

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

Study on Oxides of Nitrogen From Light-Duty Vehicles

Pub. L. 95–95, title II, §202(a), Aug. 7, 1977, 91 Stat. 753, provided that the Administrator of the Environmental Protection Agency conduct a study of the public health implications of attaining an emission standard on oxides of nitrogen from light-duty vehicles of 0.4 gram per vehicle mile, the cost and technological capability of attaining such standard, and the need for such a standard to protect public health or welfare and that the Administrator submit a report of such study to the Congress, together with recommendations not later than July 1, 1980.

Study of Carbon Monoxide Intrusion Into Sustained-Use Vehicles

Pub. L. 95–95, title II, §226, Aug. 7, 1977, 91 Stat. 769, provided that the Administrator, in conjunction with the Secretary of Transportation, study the problem of carbon monoxide intrusion into the passenger area of sustained-use motor vehicles and that within one year the Administrator report to the Congress respecting the results of such study.

Continuing Comprehensive Studies and Investigations by National Academy of Sciences

Pub. L. 95–95, title IV, §403(f), Aug. 7, 1977, 91 Stat. 793, provided that: ''The Administrator of the Environmental Protection Agency shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct continuing comprehensive studies and investigations of the effects on public health and welfare of emissions subject to section 202(a) of the Clean Air Act [subsec. (a) of this section] (including sulfur compounds) and the technological feasibility of meeting emission standards required to be prescribed by the Administrator by section 202(b) of such Act [subsec. (b) of this section]. The Administrator shall report to the Congress within six months of the date of enactment of this section [Aug. 7, 1977] and each year thereafter regarding the status of the contractual arrangements and conditions necessary to implement this paragraph.''

[For termination, effective May 15, 2000, of provisions relating to annual report to Congress in section 403(f) of Pub. L. 95–95, set out above, see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 2nd item on page 165 of House Document No. 103–7.]

Study on Emission of Sulfur-Bearing Compounds From Motor Vehicles and Motor Vehicle and Aircraft Engines

Pub. L. 95–95, title IV, §403(g), Aug. 7, 1977, 91 Stat. 793, provided that the Administrator of the Environmental Protection Agency conduct a study and report to the Congress by the date one year after Aug. 7, 1977, on the emission of sulfur-bearing compounds from motor vehicles and motor vehicle engines and aircraft engines.

Ex. Ord. No. 13432. Cooperation Among Agencies in Protecting the Environment With Respect to Greenhouse Gas Emissions From Motor Vehicles, Nonroad Vehicles, and Nonroad Engines

Ex. Ord. No. 13432, May 14, 2007, 72 F.R. 27717, as amended by Ex. Ord. No. 13693, §16(e), Mar. 19, 2015, 80 F.R. 15881, provided:

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. *Policy*. It is the policy of the United States to ensure the coordinated and effective exercise of the authorities of the President and the heads of the Department of Transportation, the Department of Energy, and the Environmental Protection Agency to protect the environment with respect to greenhouse gas emissions from motor vehicles, nonroad vehicles, and nonroad engines, in a manner consistent with sound science, analysis of benefits and costs, public safety, and economic growth.

Sec. 2. *Definitions*. As used in this order:

(a) ''agencies'' refers to the Department of Transportation, the Department of Energy, and the Environmental Protection Agency, and all units thereof, and ''agency'' refers to any of them;

(b) ''alternative fuels'' has the meaning specified for that term in section 301(2) of the Energy Policy Act of 1992 (42 U.S.C. 13211(2));

(c) ''authorities'' include the Clean Air Act (42 U.S.C. 7401–7671q), the Energy Policy Act of 1992 (Public Law 102–486), the Energy Policy Act of 2005 (Public Law 109–58), the Energy Policy and Conservation Act (Public Law 94–163), and any other current or future laws or regulations that may authorize or require any of the agencies to take regulatory action that directly or indirectly affects emissions of greenhouse gases from motor vehicles;

(d) ''greenhouse gases'' means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen triflouride [sic], and sulfur hexafluoride;

(e) ''motor vehicle'' has the meaning specified for that term in section 216(2) of the Clean Air Act (42 U.S.C. 7550(2));

(f) ''nonroad engine'' has the meaning specified for that term in section 216(10) of the Clean Air Act (42 U.S.C. 7550(10));

(g) ''nonroad vehicle'' has the meaning specified for that term in section 216(11) of the Clean Air Act (42 U.S.C. 7550(11));

(h) ''regulation'' has the meaning specified for that term in section 3(d) of Executive Order 12866 of September 30, 1993, as amended (Executive Order 12866); and

(i) ''regulatory action'' has the meaning specified for that term in section 3(e) of Executive Order 12866.

SEC. 3. *Coordination Among the Agencies.* In carrying out the policy set forth in section 1 of this order, the head of an agency undertaking a regulatory action that can reasonably be expected to directly regulate emissions, or to substantially and predictably affect emissions, of greenhouse gases from motor vehicles, nonroad vehicles, nonroad engines, or the use of motor vehicle fuels, including alternative fuels, shall:

(a) undertake such a regulatory action, to the maximum extent permitted by law and determined by the head of the agency to be practicable, jointly with the other agencies;

(b) in undertaking such a regulatory action, consider, in accordance with applicable law, information and recommendations provided by the other agencies;

(c) in undertaking such a regulatory action, exercise authority vested by law in the head of such agency effectively, in a manner consistent with the effective exercise by the heads of the other agencies of the authority vested in them by law; and

(d) obtain, to the extent permitted by law, concurrence or other views from the heads of the other agencies during the development and preparation of the regulatory action and prior to any key decision points during that development and preparation process, and in no event later than 30 days prior to publication of such action.

SEC. 4. *Duties of the Heads of Agencies.* (a) To implement this order, the head of each agency shall:

(1) designate appropriate personnel within the agency to (i) direct the agency's implementation of this order, (ii) ensure that the agency keeps the other agencies and the Office of Management and Budget informed of the agency regulatory actions to which section 3 refers, and (iii) coordinate such actions with the agencies;

(2) in coordination as appropriate with the Committee on Climate Change Science and Technology, continue to conduct and share research designed to advance technologies to further the policy set forth in section 1 of this order;

(3) facilitate the sharing of personnel and the sharing of information among the agencies to further the policy set forth in section 1 of this order;

(4) coordinate with the other agencies to avoid duplication of requests to the public for information from the public in the course of undertaking such regulatory action, consistent with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*); and

(5) consult with the Secretary of Agriculture whenever a regulatory action will have a significant effect on agriculture related to the production or use of ethanol, biodiesel, or other renewable fuels, including actions undertaken in whole or in part based on authority or requirements in title XV of the Energy Policy Act of 2005, or the amendments made by such title, or when otherwise appropriate or required by law.

(b) To implement this order, the heads of the agencies acting jointly may allocate as appropriate among the agencies administrative responsibilities relating to regulatory actions to which section 3 refers, such as publication of notices in the Federal Register and receipt of comments in response to notices.

SEC. 5. *Duties of the Director of the Office of Management and Budget and the Chairman of the Council on Environmental Quality.* (a) The Director of the Office of Management and Budget, with such assistance from the Chairman of the Council on Environmental Quality as the Director may require, shall monitor the implementation of this order by the heads of the agencies and shall report thereon to the President from time to time, and not less often than semiannually, with any recommendations of the Director for strengthening the implementation of this order.

(b) To implement this order and further the policy set forth in section 1, the Director of the Office of Management and Budget may require the heads of the agencies to submit reports to, and coordinate with, such Office on matters related to this order.

SEC. 6. *General Provisions.* (a) This order shall be implemented in accordance with applicable law and subject to the availability of appropriations.

(b) This order shall not be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, and legislative proposals.

(c) This order is not intended to, and does not, create any right, benefit or privilege, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, instrumentalities, or entities, its officers or employees, or any other person.

§ 7522. Prohibited acts

(a) Enumerated prohibitions

The following acts and the causing thereof are prohibited—

(1) in the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, the sale, or the offering for sale, or the introduction, or delivery for introduction, into commerce, or (in the case of any person, except as provided by regulation of the Administrator), the importation into the United States, of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this part which are applicable to such vehicle or engine unless such vehicle or engine is covered by a certificate of conformity issued (and in effect) under regulations prescribed under this part or part C in the case of clean-fuel vehicles (except as provided in subsection (b));

(2)(A) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 7542 of this title;

(B) for any person to fail or refuse to permit entry, testing or inspection authorized under section 7525(c) of this title or section 7542 of this title;

(C) for any person to fail or refuse to perform tests, or have tests performed as required under section 7542 of this title;

(D) for any manufacturer to fail to make information available as provided by regulation under section 7521(m)(5) of this title;

(3)(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter prior to its sale and delivery to the ultimate purchaser, or for any person knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser; or

(B) for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and

where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use; or

(4) for any manufacturer of a new motor vehicle or new motor vehicle engine subject to standards prescribed under section 7521 of this title or part C—

(A) to sell or lease any such vehicle or engine unless such manufacturer has complied with (i) the requirements of section 7541(a) and (b) of this title with respect to such vehicle or engine, and unless a label or tag is affixed to such vehicle or engine in accordance with section 7541(c)(3) of this title, or (ii) the corresponding requirements of part C in the case of clean fuel vehicles unless the manufacturer has complied with the corresponding requirements of part C[1]

(B) to fail or refuse to comply with the requirements of section 7541(c) or (e) of this title, or the corresponding requirements of part C in the case of clean fuel vehicles[1]

(C) except as provided in subsection (c)(3) of section 7541 of this title and the corresponding requirements of part C in the case of clean fuel vehicles, to provide directly or indirectly in any communication to the ultimate purchaser or any subsequent purchaser that the coverage of any warranty under this chapter is conditioned upon use of any part, component, or system manufactured by such manufacturer or any person acting for such manufacturer or under his control, or conditioned upon service performed by any such person, or

(D) to fail or refuse to comply with the terms and conditions of the warranty under section 7541(a) or (b) of this title or the corresponding requirements of part C in the case of clean fuel vehicles with respect to any vehicle; or

(5) for any person to violate section 7553 of this title, 7554 of this title, or part C of this subchapter or any regulations under section 7553 of this title, 7554 of this title, or part C.

No action with respect to any element of design referred to in paragraph (3) (including any adjustment or alteration of such element) shall be treated as a prohibited act under such paragraph (3) if such action is in accordance with section 7549 of this title. Nothing in paragraph (3) shall be construed to require the use of manufacturer parts in maintaining or repairing any motor vehicle or motor vehicle engine. For the purposes of the preceding sentence, the term ''manufacturer parts'' means, with respect to a motor vehicle engine, parts produced or sold by the manufacturer of the motor vehicle or motor vehicle engine. No action with respect to any device or element of design referred to in paragraph (3) shall be treated as a prohibited act under that paragraph if (i) the action is for the purpose of repair or replacement of the device or element, or is a necessary and temporary procedure to repair or replace any other item and the device or element is replaced upon completion of the procedure, and (ii) such action thereafter results in the proper functioning of the device or element referred to in paragraph (3). No action with respect to any device or element of design referred to in paragraph (3) shall be treated as a prohibited act under that paragraph if the action is for the purpose of a conversion of a motor vehicle for use of a clean alternative fuel (as defined in this subchapter) and if such vehicle complies with the applicable standard under section 7521 of this title when operating on such fuel, and if in the case of a clean alternative fuel vehicle (as defined by rule by the Administrator), the device or element is replaced upon completion of the conversion procedure and such action results in proper functioning of the device or element when the motor vehicle operates on conventional fuel.

(b) Exemptions; refusal to admit vehicle or engine into United States; vehicles or engines intended for export

(1) The Administrator may exempt any new motor vehicle or new motor vehicle engine, from subsection (a), upon such terms and conditions as he may find necessary for the purpose of research, investigations, studies, demonstrations, or training, or for reasons of national security.

(2) A new motor vehicle or new motor vehicle engine offered for importation or imported by any person in violation of subsection (a) shall be refused admission into the United States, but the Secretary of the Treasury and the Administrator may, by joint regulation, provide for deferring final determination as to admission and authorizing the delivery of such a motor vehicle or engine offered for import to the owner or consignee thereof upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such motor vehicle or engine will be brought into conformity with the standards, requirements, and limitations applicable to it under this part. The Secretary of the Treasury shall, if a motor vehicle or engine is finally refused admission under this paragraph, cause disposition thereof in accordance with the customs laws unless it is exported, under regulations prescribed by such Secretary, within ninety days of the date of notice of such refusal or such additional time as may be permitted pursuant to such regulations, except that disposition in accordance with the customs laws may not be made in such manner as may result, directly or indirectly, in the sale, to the ultimate consumer, of a new motor vehicle or new motor vehicle engine that fails to comply with applicable standards of the Administrator under this part.

(3) A new motor vehicle or new motor vehicle engine intended solely for export, and so labeled or tagged on the outside of the container and on the vehicle or engine itself, shall be subject to the provisions of subsection (a), except that if the country which is to receive such vehicle or engine has emission standards which differ from the standards prescribed under section 7521 of this title, then such vehicle or engine shall comply with the standards of such country which is to receive such vehicle or engine.

(July 14, 1955, ch. 360, title II, §203, as added Pub. L. 89–272, title I, §101(8), Oct. 20, 1965, 79 Stat. 993; amended Pub. L. 90–148, §2, Nov. 21, 1967, 81

[1] So in original. Probably should be followed by a comma.

Stat. 499; Pub. L. 91–604, §§7(a), 11(a)(2)(A), 15(c)(2), Dec. 31, 1970, 84 Stat. 1693, 1705, 1713; Pub. L. 95–95, title II, §§206, 211(a), 218(a), (d), 219(a), (b), Aug. 7, 1977, 91 Stat. 755, 757, 761, 762; Pub. L. 95–190, §14(a)(66)–(68), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101–549, title II, §§228(a), (b), (e), 230(6), Nov. 15, 1990, 104 Stat. 2507, 2511, 2529.)

CODIFICATION

Section was formerly classified to section 1857f–2 of this title.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, §228(b)(2), inserted two sentences at end which set forth conditions under which actions with respect to devices or elements of design, referred to in par. (3), would not be deemed prohibited acts.

Subsec. (a)(1). Pub. L. 101–549, §228(e)(1), inserted ''or part C in the case of clean-fuel vehicles'' before ''(except''.

Subsec. (a)(2). Pub. L. 101–549, §228(a), amended par. (2) generally. Prior to amendment, par. (2) read as follows: ''for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information, required under section 7542 of this title or for any person to fail or refuse to permit entry, testing, or inspection authorized under section 7525(c) of this title;''.

Subsec. (a)(3). Pub. L. 101–549, §228(b)(1), amended par. (3) generally. Prior to amendment, par. (3) read as follows:

''(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter prior to its sale and delivery to the ultimate purchaser, or for any manufacturer or dealer knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser; or

''(B) for any person engaged in the business of repairing, servicing, selling, leasing, or trading motor vehicles or motor vehicle engines, or who operates a fleet of motor vehicles, knowingly to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter following its sale and delivery to the ultimate purchaser; or''.

Subsec. (a)(4). Pub. L. 101–549, §228(e)(2), inserted ''or part C'' after ''section 7521 of this title''.

Subsec. (a)(4)(A). Pub. L. 101–549, §228(e)(3), inserted cl. (i) designation and added cl. (ii).

Subsec. (a)(4)(B). Pub. L. 101–549, §228(e)(4), inserted at end ''or the corresponding requirements of part C in the case of clean fuel vehicles''.

Subsec. (a)(4)(C). Pub. L. 101–549, §228(e)(5), inserted ''and the corresponding requirements of part C in the case of clean fuel vehicles'' after ''section 7541 of this title''.

Subsec. (a)(4)(D). Pub. L. 101–549, §228(e)(6), inserted ''or the corresponding requirements of part C in the case of clean fuel vehicles'' before ''with respect to any vehicle''.

Subsec. (a)(5). Pub. L. 101–549, §228(e)(7), added par. (5).

Subsec. (c). Pub. L. 101–549, §230(6), struck out subsec. (c) which related to exemptions to permit modifications of emission control devices or systems.

1977—Subsec. (a). Pub. L. 95–190, §14(a)(68), in closing text inserted a period after ''section 7549 of this title''.

Pub. L. 95–95, §§206, 211(a), 218(a), 219(a), (b), inserted ''or for any person to fail or refuse to permit entry, testing, or inspection authorized under section 7525(c) of this title'' in par. (2), designated existing provisions of par. (3) as subpar. (A) and added subpar. (B), added subpars. (C) and (D) in par. (4), and, following par. (4), inserted provisions that no action with respect to any element of design referred to in par. (3) (including adjustment or alteration of such element) be treated as a prohibited act under par. (3) if the action is in accordance with section 7549 of this title and that nothing in par. (3) be construed to require the use of manufacturer parts in maintaining or repairing motor vehicles or motor vehicle engines.

Subsec. (a)(3)(B). Pub. L. 95–190, §14(a)(66), substituted ''purchaser;'' for ''purchaser,''.

Subsec. (a)(4)(C). Pub. L. 95–190, §14(a)(67), inserted ''or'' after ''such person,''.

Subsec. (b)(3). Pub. L. 95–95, §218(d), substituted ''section 7521 of this title'' for ''subsection (a)'' and ''country which is to receive such vehicle or engine'' for ''country of export''.

1970—Subsec. (a)(1). Pub. L. 91–604, §7(a)(1), struck out reference to the manufacture of new motor vehicles or new motor vehicle engines for sale, inserted provision for issuance by the Administrator of regulations regarding exceptions in the case of importation of new motor vehicles or new motor vehicle engines, and substituted ''importation'' into the United States of such units for ''importation for sale or resale'' into the United States of such units.

Subsec. (a)(2). Pub. L. 91–604, §7(a)(2), substituted ''section 208'' for ''section 207'', both of which, for purposes of codification, are translated as ''section 7542 of this title''.

Subsec. (a)(3). Pub. L. 91–604, §§7(a)(3), 11(a)(2)(A), substituted ''part'' for ''subchapter'' and inserted provisions prohibiting the knowing removal or inoperation by manufacturers or dealers of devices or elements of design after sale and delivery to the ultimate purchaser.

Subsec. (a)(4). Pub. L. 91–604, §7(a)(4), added par. (4).

Subsec. (b)(1). Pub. L. 91–604, §§7(a)(5), 15(c)(2), struck out reference to the exemption of a class of new motor vehicles or new motor vehicle engines, struck out the protection of the public health and welfare from the enumeration of purposes for which exemptions may be made, and substituted ''Administrator'' for ''Secretary''.

Subsec. (b)(2). Pub. L. 91–604, §§7(a)(6), 11(a)(2)(A), 15(c)(2), substituted ''Administrator'' for ''Secretary of Health, Education, and Welfare'', ''importation or imported by any person'' for ''importation by a manufacturer'', and ''part'' for ''subchapter''.

Subsec. (b)(3). Pub. L. 91–604, §7(a)(7)(A), inserted provision that, if the country of export has emission standards which differ from the standards prescribed under subsec. (a), such vehicle or engine must comply with the standards of such country of export.

Subsec. (c). Pub. L. 91–604, §7(a)(7)(B), added subsec. (c).

1967—Subsec. (a). Pub. L. 90–148 substituted ''conformity with regulations prescribed under this subchapter'' for ''conformity with regulations prescribed under section 7521 of this title'' in par. (1).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7523. Actions to restrain violations

(a) Jurisdiction

The district courts of the United States shall have jurisdiction to restrain violations of section 7522(a) of this title.

(b) Actions brought by or in name of United States; subpenas

Actions to restrain such violations shall be brought by and in the name of the United States. In any such action, subpenas for witnesses who are required to attend a district court in any district may run into any other district.

(July 14, 1955, ch. 360, title II, § 204, as added Pub. L. 89–272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 500; Pub. L. 91–604, § 7(b), Dec. 31, 1970, 84 Stat. 1694; Pub. L. 95–95, title II, § 218(b), Aug. 7, 1977, 91 Stat. 761.)

CODIFICATION

Section was formerly classified to section 1857f–3 of this title.

AMENDMENTS

1977—Subsec. (a). Pub. L. 95–95 struck out ''paragraph (1), (2), (3), or (4)'' after ''restrain violations of''.

1970—Subsec. (a). Pub. L. 91–604 inserted reference to par. (4) of section 7522(a) of this title.

1967—Pub. L. 90–148 reenacted section without change.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 amendment note under section 7401 of this title.

§ 7524. Civil penalties

(a) Violations

Any person who violates sections[1] 7522(a)(1), 7522(a)(4), or 7522(a)(5) of this title or any manufacturer or dealer who violates section 7522(a)(3)(A) of this title shall be subject to a civil penalty of not more than $25,000. Any person other than a manufacturer or dealer who violates section 7522(a)(3)(A) of this title or any person who violates section 7522(a)(3)(B) of this title shall be subject to a civil penalty of not more than $2,500. Any such violation with respect to paragraph (1), (3)(A), or (4) of section 7522(a) of this title shall constitute a separate offense with respect to each motor vehicle or motor vehicle engine. Any such violation with respect to section 7522(a)(3)(B) of this title shall constitute a separate offense with respect to each part or component. Any person who violates section 7522(a)(2) of this title shall be subject to a civil penalty of not more than $25,000 per day of violation.

(b) Civil actions

The Administrator may commence a civil action to assess and recover any civil penalty under subsection (a) of this section, section 7545(d) of this title, or section 7547(d) of this title. Any action under this subsection may be brought in the district court of the United States for the district in which the violation is alleged to have occurred or in which the defendant resides or has the Administrator's principal place of business, and the court shall have jurisdiction to assess a civil penalty. In determining the amount of any civil penalty to be assessed under this subsection, the court shall take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator's business, the violator's history of compliance with this subchapter, action taken to remedy the violation, the effect of the penalty on the violator's ability to continue in business, and such other matters as justice may require. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

(c) Administrative assessment of certain penalties

(1) Administrative penalty authority

In lieu of commencing a civil action under subsection (b), the Administrator may assess any civil penalty prescribed in subsection (a) of this section, section 7545(d) of this title, or section 7547(d) of this title, except that the maximum amount of penalty sought against each violator in a penalty assessment proceeding shall not exceed $200,000, unless the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount is appropriate for administrative penalty assessment. Any such determination by the Administrator and the Attorney General shall not be subject to judicial review. Assessment of a civil penalty under this subsection shall be by an order made on the record after opportunity for a hearing in accordance with sections 554 and 556 of title 5. The Administrator shall issue reasonable rules for discovery and other procedures for hearings under this paragraph. Before issuing such an order, the Administrator shall give written notice to the person to be assessed an administrative penalty of the Administrator's proposal to issue such order and provide such person an opportunity to request such a hearing on the order, within 30 days of the date the notice is received by such person. The Administrator may compromise, or remit, with or without conditions, any administrative penalty which may be imposed under this section.

(2) Determining amount

In determining the amount of any civil penalty assessed under this subsection, the Administrator shall take into account the gravity of the violation, the economic benefit or savings (if any) resulting from the violation, the size of the violator's business, the viola-

[1] So in original. Probably should be ''section''.

tor's history of compliance with this subchapter, action taken to remedy the violation, the effect of the penalty on the violator's ability to continue in business, and such other matters as justice may require.

(3) Effect of Administrator's action

(A) Action by the Administrator under this subsection shall not affect or limit the Administrator's authority to enforce any provision of this chapter; except that any violation,

(i) with respect to which the Administrator has commenced and is diligently prosecuting an action under this subsection, or

(ii) for which the Administrator has issued a final order not subject to further judicial review and the violator has paid a penalty assessment under this subsection,

shall not be the subject of civil penalty action under subsection (b).

(B) No action by the Administrator under this subsection shall affect any person's obligation to comply with any section of this chapter.

(4) Finality of order

An order issued under this subsection shall become final 30 days after its issuance unless a petition for judicial review is filed under paragraph (5).

(5) Judicial review

Any person against whom a civil penalty is assessed in accordance with this subsection may seek review of the assessment in the United States District Court for the District of Columbia, or for the district in which the violation is alleged to have occurred, in which such person resides, or where such person's principal place of business is located, within the 30-day period beginning on the date a civil penalty order is issued. Such person shall simultaneously send a copy of the filing by certified mail to the Administrator and the Attorney General. The Administrator shall file in the court a certified copy, or certified index, as appropriate, of the record on which the order was issued within 30 days. The court shall not set aside or remand any order issued in accordance with the requirements of this subsection unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the Administrator's assessment of the penalty constitutes an abuse of discretion, and the court shall not impose additional civil penalties unless the Administrator's assessment of the penalty constitutes an abuse of discretion. In any proceedings, the United States may seek to recover civil penalties assessed under this section.

(6) Collection

If any person fails to pay an assessment of a civil penalty imposed by the Administrator as provided in this subsection—

(A) after the order making the assessment has become final, or

(B) after a court in an action brought under paragraph (5) has entered a final judgment in favor of the Administrator,

the Administrator shall request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus interest at rates established pursuant to section 6621(a)(2) of title 26 from the date of the final order or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of the penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty as described in the first sentence of this paragraph shall be required to pay, in addition to that amount and interest, the United States' enforcement expenses, including attorneys fees and costs for collection proceedings, and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. The nonpayment penalty shall be in an amount equal to 10 percent of the aggregate amount of that person's penalties and nonpayment penalties which are unpaid as of the beginning of such quarter.

(July 14, 1955, ch. 360, title I, § 205, as added Pub. L. 89–272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 500; Pub. L. 91–604, § 7(c), Dec. 31, 1970, 84 Stat. 1694; Pub. L. 95–95, title II, § 219(c), Aug. 7, 1977, 91 Stat. 762; Pub. L. 101–549, title II, § 228(c), Nov. 15, 1990, 104 Stat. 2508.)

CODIFICATION

Section was formerly classified to section 1857f–4 of this title.

AMENDMENTS

1990—Pub. L. 101–549 amended section generally. Prior to amendment, section read as follows: ''Any person who violates paragraph (1), (2), or (4) of section 7522(a) of this title or any manufacturer, dealer, or other person who violates paragraph (3)(A) of section 7522(a) of this title shall be subject to a civil penalty of not more than $10,000. Any person who violates paragraph (3)(B) of such section 7522(a) shall be subject to a civil penalty of not more than $2,500. Any such violation with respect to paragraph (1), (3), or (4) of section 7522(a) of this title shall constitute a separate offense with respect to each motor vehicle or motor vehicle engine.''

1977—Pub. L. 95–95 substituted ''Any person who violates paragraph (1), (2), or (4) of section 7522(a) of this title, or any manufacturer, dealer, or other person who violates paragraph (3)(A) of section 7522(a) of this title'' for ''Any person who violates paragraph (1), (2), (3), or (4) of section 7522(a) of this title'' in provisions covering the civil penalty of $10,000, and inserted provisions for a civil penalty of not more than $2,500 for violations of par. (3)(B) of section 7522(a) of this title.

1970—Pub. L. 91–604 increased the upper limit of the allowable fine from ''$1,000'' to ''$10,000''.

1967—Pub. L. 90–148 reenacted section without change.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

§ 7525. Motor vehicle and motor vehicle engine compliance testing and certification

(a) Testing and issuance of certificate of conformity

(1) The Administrator shall test, or require to be tested in such manner as he deems appropriate, any new motor vehicle or new motor ve-

hicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with the regulations prescribed under section 7521 of this title. If such vehicle or engine conforms to such regulations, the Administrator shall issue a certificate of conformity upon such terms, and for such period (not in excess of one year), as he may prescribe. In the case of any original equipment manufacturer (as defined by the Administrator in regulations promulgated before November 15, 1990) of vehicles or vehicle engines whose projected sales in the United States for any model year (as determined by the Administrator) will not exceed 300, the Administrator shall not require, for purposes of determining compliance with regulations under section 7521 of this title for the useful life of the vehicle or engine, operation of any vehicle or engine manufactured during such model year for more than 5,000 miles or 160 hours, respectively, unless the Administrator, by regulation, prescribes otherwise. The Administrator shall apply any adjustment factors that the Administrator deems appropriate to assure that each vehicle or engine will comply during its useful life (as determined under section 7521(d) of this title) with the regulations prescribed under section 7521 of this title.

(2) The Administrator shall test any emission control system incorporated in a motor vehicle or motor vehicle engine submitted to him by any person, in order to determine whether such system enables such vehicle or engine to conform to the standards required to be prescribed under section 7521(b) of this title. If the Administrator finds on the basis of such tests that such vehicle or engine conforms to such standards, the Administrator shall issue a verification of compliance with emission standards for such system when incorporated in vehicles of a class of which the tested vehicle is representative. He shall inform manufacturers and the National Academy of Sciences, and make available to the public, the results of such tests. Tests under this paragraph shall be conducted under such terms and conditions (including requirements for preliminary testing by qualified independent laboratories) as the Administrator may prescribe by regulations.

(3)(A) A certificate of conformity may be issued under this section only if the Administrator determines that the manufacturer (or in the case of a vehicle or engine for import, any person) has established to the satisfaction of the Administrator that any emission control device, system, or element of design installed on, or incorporated in, such vehicle or engine conforms to applicable requirements of section 7521(a)(4) of this title.

(B) The Administrator may conduct such tests and may require the manufacturer (or any such person) to conduct such tests and provide such information as is necessary to carry out subparagraph (A) of this paragraph. Such requirements shall include a requirement for prompt reporting of the emission of any unregulated pollutant from a system, device, or element of design if such pollutant was not emitted, or was emitted in significantly lesser amounts, from the vehicle or engine without use of the system, device, or element of design.

(4)(A) Not later than 12 months after November 15, 1990, the Administrator shall revise the regulations promulgated under this subsection to add test procedures capable of determining whether model year 1994 and later model year light-duty vehicles and light-duty trucks, when properly maintained and used, will pass the inspection methods and procedures established under section 7541(b) of this title for that model year, under conditions reasonably likely to be encountered in the conduct of inspection and maintenance programs, but which those programs cannot reasonably influence or control. The conditions shall include fuel characteristics, ambient temperature, and short (30 minutes or less) waiting periods before tests are conducted. The Administrator shall not grant a certificate of conformity under this subsection for any 1994 or later model year vehicle or engine that the Administrator concludes cannot pass the test procedures established under this paragraph.

(B) From time to time, the Administrator may revise the regulations promulgated under subparagraph (A), as the Administrator deems appropriate.

(5)(A) A motor vehicle engine (including all engine emission controls) may be installed in an exempted specially produced motor vehicle if the motor vehicle engine is from a motor vehicle that is covered by a certificate of conformity issued by the Administrator for the model year in which the exempted specially produced motor vehicle is produced, or the motor vehicle engine is covered by an Executive order subject to regulations promulgated by the California Air Resources Board for the model year in which the exempted specially produced motor vehicle is produced, and—

(i) the manufacturer of the engine supplies written instructions to the Administrator and the manufacturer of the exempted specially produced motor vehicle explaining how to install the engine and maintain functionality of the engine's emission control system and the on-board diagnostic system (commonly known as ''OBD''), except with respect to evaporative emissions;

(ii) the manufacturer of the exempted specially produced motor vehicle installs the engine in accordance with such instructions and certifies such installation in accordance with subparagraph (E);

(iii) the installation instructions include emission control warranty information from the engine manufacturer in compliance with section 7541 of this title, including where warranty repairs can be made, emission control labels to be affixed to the vehicle, and the certificate of conformity number for the applicable vehicle in which the engine was originally intended or the applicable Executive order number for the engine; and

(iv) the manufacturer of the exempted specially produced motor vehicle does not produce more than 325 such vehicles in the calendar year in which the vehicle is produced.

(B) A motor vehicle containing an engine compliant with the requirements of subparagraph (A) shall be treated as meeting the requirements of section 7521 of this title applicable to new ve-

hicles produced or imported in the model year in which the exempted specially produced motor vehicle is produced or imported.

(C) Engine installations that are not performed in accordance with installation instructions provided by the manufacturer and alterations to the engine not in accordance with the installation instructions shall—

(i) be treated as prohibited acts by the installer under section 7522 of this title and any applicable regulations; and

(ii) subject to civil penalties under section 7524(a) of this title, civil actions under section 7524(b) of this title, and administrative assessment of penalties under section 7524(c) of this title.

(D) The manufacturer of an exempted specially produced motor vehicle that has an engine compliant with the requirements of subparagraph (A) shall provide to the purchaser of such vehicle all information received by the manufacturer from the engine manufacturer, including information regarding emissions warranties from the engine manufacturer and all emissions-related recalls by the engine manufacturer.

(E) To qualify to install an engine under this paragraph, and sell, offer for sale, introduce into commerce, deliver for introduction into commerce or import an exempted specially produced motor vehicle, a manufacturer of exempted specially produced motor vehicles shall register with the Administrator at such time and in such manner as the Administrator determines appropriate. The manufacturer shall submit an annual report to the Administrator that includes—

(i) a description of the exempted specially produced motor vehicles and engines installed in such vehicles;

(ii) the certificate of conformity number issued to the motor vehicle in which the engine was originally intended or the applicable Executive order number for the engine; and

(iii) a certification that it produced all exempted specially produced motor vehicles according to the written instructions from the engine manufacturer, and otherwise that the engine conforms in all material respects to the description in the application for the applicable certificate of conformity or Executive order.

(F) Exempted specially produced motor vehicles compliant with this paragraph shall be exempted from—

(i) motor vehicle certification testing under this section; and

(ii) vehicle emission control inspection and maintenance programs required under section 7410 of this title.

(G)(i) Except as provided in subparagraphs (A) through (F), a person engaged in the manufacturing or assembling of exempted specially produced motor vehicles shall be considered a manufacturer for purposes of this chapter.

(ii) Nothing in this paragraph shall be construed to exempt any person from the prohibitions in section 7522(a)(3) of this title or the requirements in sections 7542, 7525(c), or 7521(m)(5) of this title.

(H) In this paragraph:

(i) The term ''exempted specially produced motor vehicle'' means a light-duty vehicle or light-duty truck produced by a low-volume manufacturer and that—

(I) is intended to resemble the body of another motor vehicle that was manufactured not less than 25 years before the manufacture of the exempted specially produced motor vehicle; and

(II) is manufactured under a license for the product configuration, trade dress, trademark, or patent, for the motor vehicle that is intended to be replicated from the original manufacturer, its successors or assignees, or current owner of such product configuration, trade dress, trademark, or patent rights.

(ii) The term ''low-volume manufacturer'' means a motor vehicle manufacturer, other than a person who is registered as an importer under section 30141 of title 49, whose annual worldwide production, including by a parent or subsidiary of the manufacturer, if applicable, is not more than 5,000 motor vehicles.

(b) Testing procedures; hearing; judicial review; additional evidence

(1) In order to determine whether new motor vehicles or new motor vehicle engines being manufactured by a manufacturer do in fact conform with the regulations with respect to which the certificate of conformity was issued, the Administrator is authorized to test such vehicles or engines. Such tests may be conducted by the Administrator directly or, in accordance with conditions specified by the Administrator, by the manufacturer.

(2)(A)(i) If, based on tests conducted under paragraph (1) on a sample of new vehicles or engines covered by a certificate of conformity, the Administrator determines that all or part of the vehicles or engines so covered do not conform with the regulations with respect to which the certificate of conformity was issued and with the requirements of section 7521(a)(4) of this title, he may suspend or revoke such certificate in whole or in part, and shall so notify the manufacturer. Such suspension or revocation shall apply in the case of any new motor vehicles or new motor vehicle engines manufactured after the date of such notification (or manufactured before such date if still in the hands of the manufacturer), and shall apply until such time as the Administrator finds that vehicles and engines manufactured by the manufacturer do conform to such regulations and requirements. If, during any period of suspension or revocation, the Administrator finds that a vehicle or engine actually conforms to such regulations and requirements, he shall issue a certificate of conformity applicable to such vehicle or engine.

(ii) If, based on tests conducted under paragraph (1) on any new vehicle or engine, the Administrator determines that such vehicle or engine does not conform with such regulations and requirements, he may suspend or revoke such certificate insofar as it applies to such vehicle or engine until such time as he finds such vehicle or engine actually so conforms with such regulations and requirements, and he shall so notify the manufacturer.

(B)(i) At the request of any manufacturer the Administrator shall grant such manufacturer a

hearing as to whether the tests have been properly conducted or any sampling methods have been properly applied, and make a determination on the record with respect to any suspension or revocation under subparagraph (A); but suspension or revocation under subparagraph (A) shall not be stayed by reason of such hearing.

(ii) In any case of actual controversy as to the validity of any determination under clause (i), the manufacturer may at any time prior to the 60th day after such determination is made file a petition with the United States court of appeals for the circuit wherein such manufacturer resides or has his principal place of business for a judicial review of such determination. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Administrator or other officer designated by him for that purpose. The Administrator thereupon shall file in the court the record of the proceedings on which the Administrator based his determination, as provided in section 2112 of title 28.

(iii) If the petitioner applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(iv) Upon the filing of the petition referred to in clause (ii), the court shall have jurisdiction to review the order in accordance with chapter 7 of title 5 and to grant appropriate relief as provided in such chapter.

(c) Inspection

For purposes of enforcement of this section, officers or employees duly designated by the Administrator, upon presenting appropriate credentials to the manufacturer or person in charge, are authorized (1) to enter, at reasonable times, any plant or other establishment of such manufacturer, for the purpose of conducting tests of vehicles or engines in the hands of the manufacturer, or (2) to inspect, at reasonable times, records, files, papers, processes, controls, and facilities used by such manufacturer in conducting tests under regulations of the Administrator. Each such inspection shall be commenced and completed with reasonable promptness.

(d) Rules and regulations

The Administrator shall by regulation establish methods and procedures for making tests under this section.

(e) Publication of test results

The Administrator shall make available to the public the results of his tests of any motor vehicle or motor vehicle engine submitted by a manufacturer under subsection (a) as promptly as possible after December 31, 1970, and at the beginning of each model year which begins thereafter. Such results shall be described in such nontechnical manner as will reasonably disclose to prospective ultimate purchasers of new motor vehicles and new motor vehicle engines the comparative performance of the vehicles and engines tested in meeting the standards prescribed under section 7521 of this title.

(f) High altitude regulations

All light duty[1] vehicles and engines manufactured during or after model year 1984 and all light-duty trucks manufactured during or after model year 1995 shall comply with the requirements of section 7521 of this title regardless of the altitude at which they are sold.

(g) Nonconformance penalty

(1) In the case of any class or category of heavy-duty vehicles or engines to which a standard promulgated under section 7521(a) of this title applies, except as provided in paragraph (2), a certificate of conformity shall be issued under subsection (a) and shall not be suspended or revoked under subsection (b) for such vehicles or engines manufactured by a manufacturer notwithstanding the failure of such vehicles or engines to meet such standard if such manufacturer pays a nonconformance penalty as provided under regulations promulgated by the Administrator after notice and opportunity for public hearing. In the case of motorcycles to which such a standard applies, such a certificate may be issued notwithstanding such failure if the manufacturer pays such a penalty.

(2) No certificate of conformity may be issued under paragraph (1) with respect to any class or category of vehicle or engine if the degree by which the manufacturer fails to meet any standard promulgated under section 7521(a) of this title with respect to such class or category exceeds the percentage determined under regulations promulgated by the Administrator to be practicable. Such regulations shall require such testing of vehicles or engines being produced as may be necessary to determine the percentage of the classes or categories of vehicles or engines which are not in compliance with the regulations with respect to which a certificate of conformity was issued and shall be promulgated not later than one year after August 7, 1977.

(3) The regulations promulgated under paragraph (1) shall, not later than one year after August 7, 1977, provide for nonconformance penalties in amounts determined under a formula established by the Administrator. Such penalties under such formula—

(A) may vary from pollutant-to-pollutant;

(B) may vary by class or category or vehicle or engine;

(C) shall take into account the extent to which actual emissions of any air pollutant exceed allowable emissions under the standards promulgated under section 7521 of this title;

(D) shall be increased periodically in order to create incentives for the development of production vehicles or engines which achieve the required degree of emission reduction; and

[1] So in original. Probably should be ''light-duty''.

(E) shall remove any competitive disadvantage to manufacturers whose engines or vehicles achieve the required degree of emission reduction (including any such disadvantage arising from the application of paragraph (4)).

(4) In any case in which a certificate of conformity has been issued under this subsection, any warranty required under section 7541(b)(2) of this title and any action under section 7541(c) of this title shall be required to be effective only for the emission levels which the Administrator determines that such certificate was issued and not for the emission levels required under the applicable standard.

(5) The authorities of section 7542(a) of this title shall apply, subject to the conditions of section 7542(b)[2] of this title, for purposes of this subsection.

(h) Review and revision of regulations

Within 18 months after November 15, 1990, the Administrator shall review and revise as necessary the regulations under subsection[3] (a) and (b) of this section regarding the testing of motor vehicles and motor vehicle engines to insure that vehicles are tested under circumstances which reflect the actual current driving conditions under which motor vehicles are used, including conditions relating to fuel, temperature, acceleration, and altitude.

(July 14, 1955, ch. 360, title II, § 206, as added Pub. L. 91–604, § 8(a), Dec. 31, 1970, 84 Stat. 1694; amended Pub. L. 95–95, title II, §§ 213(a), 214(b), (c), 220, 224(e), Aug. 7, 1977, 91 Stat. 758–760, 762, 768; Pub. L. 95–190, § 14(a)(69), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101–549, title II, §§ 208, 230(7), (8), Nov. 15, 1990, 104 Stat. 2483, 2529; Pub. L. 114–94, div. B, title XXIV, § 24405(b), Dec. 4, 2015, 129 Stat. 1723.)

REFERENCES IN TEXT

Section 7542 of this title, referred to in subsec. (g)(5), was amended generally by Pub. L. 101–549, title II, § 211, Nov. 15, 1990, 104 Stat. 2487, and provisions formerly contained in section 7542(b) of this title are contained in section 7542(c).

CODIFICATION

Section was formerly classified to section 1857f–5 of this title.

PRIOR PROVISIONS

A prior section 206 of act July 14, 1955, related to testing of motor vehicles and motor vehicle engines and was classified to section 1857f–5 of this title, prior to repeal by Pub. L. 91–604.

AMENDMENTS

2015—Subsec. (a)(5). Pub. L. 114–94 added par. (5).

1990—Subsec. (a)(1). Pub. L. 101–549, § 208(b), inserted new third sentence and struck out former third sentence which read as follows: ''In the case of any manufacturer of vehicles or vehicle engines whose projected sales in the United States for any model year (as determined by the Administrator) will not exceed three hundred, the regulations prescribed by the Administrator concerning testing by the manufacturer for purposes of determining compliance with regulations under section 7521 of this title for the useful life of the vehicle or engine shall not require operation of any vehicle or engine manufactured during such model year for more than five thousand miles or one hundred and sixty hours, respectively, but the Administrator shall apply such adjustment factors as he deems appropriate to assure that each such vehicle or engine will comply during its useful life (as determined under section 7521(d) of this title) with the regulations prescribed under section 7521 of this title.''

Subsec. (a)(4). Pub. L. 101–549, § 208(a), added par. (4).

Subsec. (e). Pub. L. 101–549, § 230(7), struck out ''announce in the Federal Register and'' after ''The Administrator shall''.

Subsec. (f). Pub. L. 101–549, § 230(8), struck out par. (1) designation before ''All light duty vehicles'', inserted reference to all light-duty trucks manufactured during or after model year 1995, and struck out par. (2) which required the Administrator to report to Congress by Oct. 1, 1978, on the economic impact and technological feasibility of the requirements of former par. (1).

Subsec. (h). Pub. L. 101–549, § 208(c), added subsec. (h).

1977—Subsec. (a)(1). Pub. L. 95–95, § 220, inserted provisions covering testing by small manufacturers.

Subsec. (a)(3). Pub. L. 95–95, § 214(b), added par. (3).

Subsec. (b)(2)(A)(i). Pub. L. 95–95, § 214(c)(1), (2), substituted ''certificate of conformity was issued and with the requirements of section 7521(a)(4) of this title, he may suspend'' for ''certificate of conformity was issued, he may suspend'' and ''such regulations and requirements'' for ''such regulations''.

Subsec. (b)(2)(A)(ii). Pub. L. 95–95, § 214(c)(2), substituted ''such regulations and requirements'' for ''such regulations''.

Subsec. (f). Pub. L. 95–95, § 213(a), added subsec. (f).

Subsec. (g). Pub. L. 95–95, § 224(e), added subsec. (g).

Subsec. (g)(3)(D). Pub. L. 95–190 inserted ''shall'' before ''be''.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

EFFECTIVE DATE

Pub. L. 91–604, § 8(b), Dec. 31, 1970, 84 Stat. 1698, provided that: ''The amendments made by this section [enacting this section and section 7541 of this title] shall not apply to vehicles or engines imported into the United States before the sixtieth day after the date of enactment of this Act [Dec. 31, 1970].''

REGULATIONS

Pub. L. 114–94, div. B, title XXIV, § 24405(c), Dec. 4, 2015, 129 Stat. 1725, provided that: ''Not later than 12 months after the date of enactment of this Act [Dec. 4, 2015], the Secretary of Transportation and the Administrator of the Environmental Protection Agency shall issue such regulations as may be necessary to implement the amendments made by subsections (a) [amending section 30114 of Title 49, Transportation] and (b) [amending this section], respectively.''

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

[2] See References in Text note below.

[3] So in original. Probably should be ''subsections''.

§ 7541. Compliance by vehicles and engines in actual use

(a) Warranty; certification; payment of replacement costs of parts, devices, or components designed for emission control

(1) Effective with respect to vehicles and engines manufactured in model years beginning more than 60 days after December 31, 1970, the manufacturer of each new motor vehicle and new motor vehicle engine shall warrant to the ultimate purchaser and each subsequent purchaser that such vehicle or engine is (A) designed, built, and equipped so as to conform at the time of sale with applicable regulations under section 7521 of this title, and (B) free from defects in materials and workmanship which cause such vehicle or engine to fail to conform with applicable regulations for its useful life (as determined under section 7521(d) of this title). In the case of vehicles and engines manufactured in the model year 1995 and thereafter such warranty shall require that the vehicle or engine is free from any such defects for the warranty period provided under subsection (i).

(2) In the case of a motor vehicle part or motor vehicle engine part, the manufacturer or rebuilder of such part may certify that use of such part will not result in a failure of the vehicle or engine to comply with emission standards promulgated under section 7521 of this title. Such certification shall be made only under such regulations as may be promulgated by the Administrator to carry out the purposes of subsection (b). The Administrator shall promulgate such regulations no later than two years following August 7, 1977.

(3) The cost of any part, device, or component of any light-duty vehicle that is designed for emission control and which in the instructions issued pursuant to subsection (c)(3) of this section is scheduled for replacement during the useful life of the vehicle in order to maintain compliance with regulations under section 7521 of this title, the failure of which shall not interfere with the normal performance of the vehicle, and the expected retail price of which, including installation costs, is greater than 2 percent of the suggested retail price of such vehicle, shall be borne or reimbursed at the time of replacement by the vehicle manufacturer and such replacement shall be provided without cost to the ultimate purchaser, subsequent purchaser, or dealer. The term ''designed for emission control'' as used in the preceding sentence means a catalytic converter, thermal reactor, or other component installed on or in a vehicle for the sole or primary purpose of reducing vehicle emissions (not including those vehicle components which were in general use prior to model year 1968 and the primary function of which is not related to emission control).

(b) Testing methods and procedures

If the Administrator determines that (i) there are available testing methods and procedures to ascertain whether, when in actual use throughout its[1] the warranty period (as determined under subsection (i)), each vehicle and engine to which regulations under section 7521 of this title apply complies with the emission standards of such regulations, (ii) such methods and procedures are in accordance with good engineering practices, and (iii) such methods and procedures are reasonably capable of being correlated with tests conducted under section 7525(a)(1) of this title, then—

(1) he shall establish such methods and procedures by regulation, and

(2) at such time as he determines that inspection facilities or equipment are available for purposes of carrying out testing methods and procedures established under paragraph (1), he shall prescribe regulations which shall require manufacturers to warrant the emission control device or system of each new motor vehicle or new motor vehicle engine to which a regulation under section 7521 of this title applies and which is manufactured in a model year beginning after the Administrator first prescribes warranty regulations under this paragraph (2). The warranty under such regulations shall run to the ultimate purchaser and each subsequent purchaser and shall provide that if—

(A) the vehicle or engine is maintained and operated in accordance with instructions under subsection (c)(3),

(B) it fails to conform at any time during its[1] the warranty period (as determined under subsection (i)) to the regulations prescribed under section 7521 of this title, and

(C) such nonconformity results in the ultimate purchaser (or any subsequent purchaser) of such vehicle or engine having to bear any penalty or other sanction (including the denial of the right to use such vehicle or engine) under State or Federal law,

then such manufacturer shall remedy such nonconformity under such warranty with the cost thereof to be borne by the manufacturer. No such warranty shall be invalid on the basis of any part used in the maintenance or repair of a vehicle or engine if such part was certified as provided under subsection (a)(2).

(c) Nonconforming vehicles; plan for remedying nonconformity; instructions for maintenance and use; label or tag

Effective with respect to vehicles and engines manufactured during model years beginning more than 60 days after December 31, 1970—

(1) If the Administrator determines that a substantial number of any class or category of vehicles or engines, although properly maintained and used, do not conform to the regulations prescribed under section 7521 of this title, when in actual use throughout their useful life (as determined under section 7521(d) of this title), he shall immediately notify the manufacturer thereof of such nonconformity, and he shall require the manufacturer to submit a plan for remedying the nonconformity of the vehicles or engines with respect to which such notification is given. The plan shall provide that the nonconformity of any such vehicles or engines which are properly used and maintained will be remedied at the expense of the manufacturer. If the manufacturer disagrees with such determination of non-

[1] So in original. The word ''its'' probably should not appear.

conformity and so advises the Administrator, the Administrator shall afford the manufacturer and other interested persons an opportunity to present their views and evidence in support thereof at a public hearing. Unless, as a result of such hearing the Administrator withdraws such determination of nonconformity, he shall, within 60 days after the completion of such hearing, order the manufacturer to provide prompt notification of such nonconformity in accordance with paragraph (2).

(2) Any notification required by paragraph (1) with respect to any class or category of vehicles or engines shall be given to dealers, ultimate purchasers, and subsequent purchasers (if known) in such manner and containing such information as the Administrator may by regulations require.

(3)(A) The manufacturer shall furnish with each new motor vehicle or motor vehicle engine written instructions for the proper maintenance and use of the vehicle or engine by the ultimate purchaser and such instructions shall correspond to regulations which the Administrator shall promulgate. The manufacturer shall provide in boldface type on the first page of the written maintenance instructions notice that maintenance, replacement, or repair of the emission control devices and systems may be performed by any automotive repair establishment or individual using any automotive part which has been certified as provided in subsection (a)(2).

(B) The instruction under subparagraph (A) of this paragraph shall not include any condition on the ultimate purchaser's using, in connection with such vehicle or engine, any component or service (other than a component or service provided without charge under the terms of the purchase agreement) which is identified by brand, trade, or corporate name; or directly or indirectly distinguishing between service performed by the franchised dealers of such manufacturer or any other service establishments with which such manufacturer has a commercial relationship, and service performed by independent automotive repair facilities with which such manufacturer has no commercial relationship; except that the prohibition of this subsection may be waived by the Administrator if—

(i) the manufacturer satisfies the Administrator that the vehicle or engine will function properly only if the component or service so identified is used in connection with such vehicle or engine, and

(ii) the Administrator finds that such a waiver is in the public interest.

(C) In addition, the manufacturer shall indicate by means of a label or tag permanently affixed to such vehicle or engine that such vehicle or engine is covered by a certificate of conformity issued for the purpose of assuring achievement of emissions standards prescribed under section 7521 of this title. Such label or tag shall contain such other information relating to control of motor vehicle emissions as the Administrator shall prescribe by regulation.

(4) INTERMEDIATE IN-USE STANDARDS.—

(A) MODEL YEARS 1994 AND 1995.—For light-duty trucks of up to 6,000 lbs. gross vehicle weight rating (GVWR) and light-duty vehicles which are subject to standards under table G of section 7521(g)(1) of this title in model years 1994 and 1995 (40 percent of the manufacturer's sales volume in model year 1994 and 80 percent in model year 1995), the standards applicable to NMHC, CO, and NO_x for purposes of this subsection shall be those set forth in table A below in lieu of the standards for such air pollutants otherwise applicable under this subchapter.

TABLE A—INTERMEDIATE IN-USE STANDARDS LDTS UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Vehicle type	NMHC	CO	NO_x
Light-duty vehicles	0.32	3.4	0.4*
LDT's (0–3,750 LVW)	0.32	5.2	0.4*
LDT's (3,751–5,750 LVW)	0.41	6.7	0.7*

*Not applicable to diesel-fueled vehicles.

(B) MODEL YEARS 1996 AND THEREAFTER.—(i) In the model years 1996 and 1997, light-duty trucks (LDTs) up to 6,000 lbs. gross vehicle weight rating (GVWR) and light-duty vehicles which are not subject to final in-use standards under paragraph (5) (60 percent of the manufacturer's sales volume in model year 1996 and 20 percent in model year 1997) shall be subject to the standards set forth in table A of subparagraph (A) for NMHC, CO, and NO_x for purposes of this subsection in lieu of those set forth in paragraph (5).

(ii) For LDTs of more than 6,000 lbs. GVWR—

(I) in model year 1996 which are subject to the standards set forth in Table H of section 7521(h) of this title (50%);

(II) in model year 1997 (100%); and

(III) in model year 1998 which are not subject to final in-use standards under paragraph (5) (50%);

the standards for NMHC, CO, and NO_x for purposes of this subsection shall be those set forth in Table B below in lieu of the standards for such air pollutants otherwise applicable under this subchapter.

TABLE B—INTERMEDIATE IN-USE STANDARDS LDTS MORE THAN 6,000 LBS. GVWR

Vehicle type	NMHC	CO	NO_x
LDTs (3,751–5,750 lbs. TW)	0.40	5.5	0.88*
LDTs (over 5,750 lbs. TW)	0.49	6.2	1.38*

*Not applicable to diesel-fueled vehicles.

(C) USEFUL LIFE.—In the case of the in-use standards applicable under this paragraph, for purposes of applying this subsection, the applicable useful life shall be 5 years or 50,000 miles or the equivalent (whichever first occurs).

(5) FINAL IN-USE STANDARDS.—(A) After the model year 1995, for purposes of applying this subsection, in the case of the percentage specified in the implementation schedule below of each manufacturer's sales volume of light-duty trucks of up to 6,000 lbs. gross vehicle weight rating (GVWR) and light duty[2] vehi-

[2] So in original. Probably should be ''light-duty''.

cles, the standards for NMHC, CO, and NO_x shall be as provided in Table G in section 7521(g) of this title, except that in applying the standards set forth in Table G for purposes of determining compliance with this subsection, the applicable useful life shall be (i) 5 years or 50,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 50,000 miles; and (ii) 10 years or 100,000 miles (or the equivalent), whichever first occurs in the case of standards applicable for purposes of certification at 100,000 miles, except that no testing shall be done beyond 7 years or 75,000 miles, or the equivalent whichever first occurs.

LDTs up to 6,000 Lbs. GVWR and Light-Duty Vehicle Schedule for Implementation of Final In-Use Standards

Model year	Percent
1996	40
1997	80
1998	100

(B) After the model year 1997, for purposes of applying this subsection, in the case of the percentage specified in the implementation schedule below of each manufacturer's sales volume of light-duty trucks of more than 6,000 lbs. gross vehicle weight rating (GVWR), the standards for NMHC, CO, and NO_x shall be as provided in Table H in section 7521(h) of this title, except that in applying the standards set forth in Table H for purposes of determining compliance with this subsection, the applicable useful life shall be (i) 5 years or 50,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 50,000 miles; and (ii) 11 years or 120,000 miles (or the equivalent), whichever first occurs in the case of standards applicable for purposes of certification at 120,000 miles, except that no testing shall be done beyond 7 years or 90,000 miles (or the equivalent) whichever first occurs.

LDTs of More Than 6,000 Lbs. GVWR Implementation Schedule for Implementation of Final In-Use Standards

Model year	Percent
1998	50
1999	100

(6) Diesel vehicles; in-use useful life and testing.—(A) In the case of diesel-fueled light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles, the useful life for purposes of determining in-use compliance with the standards under section 7521(g) of this title for NO_x shall be a period of 10 years or 100,000 miles (or the equivalent), whichever first occurs, in the case of standards applicable for purposes of certification at 100,000 miles, except that testing shall not be done for a period beyond 7 years or 75,000 miles (or the equivalent) whichever first occurs.

(B) In the case of diesel-fueled light-duty trucks of 6,000 lbs. GVWR or more, the useful life for purposes of determining in-use compliance with the standards under section 7521(h) of this title for NO_x shall be a period of 11 years or 120,000 miles (or the equivalent), whichever first occurs, in the case of standards applicable for purposes of certification at 120,000 miles, except that testing shall not be done for a period beyond 7 years or 90,000 miles (or the equivalent) whichever first occurs.

(d) Dealer costs borne by manufacturer

Any cost obligation of any dealer incurred as a result of any requirement imposed by subsection (a), (b), or (c) shall be borne by the manufacturer. The transfer of any such cost obligation from a manufacturer to any dealer through franchise or other agreement is prohibited.

(e) Cost statement

If a manufacturer includes in any advertisement a statement respecting the cost or value of emission control devices or systems, such manufacturer shall set forth in such statement the cost or value attributed to such devices or systems by the Secretary of Labor (through the Bureau of Labor Statistics). The Secretary of Labor, and his representatives, shall have the same access for this purpose to the books, documents, papers, and records of a manufacturer as the Comptroller General has to those of a recipient of assistance for purposes of section 7611 of this title.

(f) Inspection after sale to ultimate purchaser

Any inspection of a motor vehicle or a motor vehicle engine for purposes of subsection (c)(1), after its sale to the ultimate purchaser, shall be made only if the owner of such vehicle or engine voluntarily permits such inspection to be made, except as may be provided by any State or local inspection program.

(g) Replacement and maintenance costs borne by owner

For the purposes of this section, the owner of any motor vehicle or motor vehicle engine warranted under this section is responsible in the proper maintenance of such vehicle or engine to replace and to maintain, at his expense at any service establishment or facility of his choosing, such items as spark plugs, points, condensers, and any other part, item, or device related to emission control (but not designed for emission control under the terms of the last sentence of subsection (a)(3))),[3] unless such part, item, or device is covered by any warranty not mandated by this chapter.

(h) Dealer certification

(1) If at any time during the period for which the warranty applies under subsection (b), a motor vehicle fails to conform to the applicable regulations under section 7521 of this title as determined under subsection (b) of this section such nonconformity shall be remedied by the manufacturer at the cost of the manufacturer pursuant to such warranty as provided in subsection (b)(2)(without regard to subparagraph (C) thereof).

(2) Nothing in section 7543(a) of this title shall be construed to prohibit a State from testing, or

[3] So in original. The final closing parenthesis probably should not appear.

requiring testing of, a motor vehicle after the date of sale of such vehicle to the ultimate purchaser (except that no new motor vehicle manufacturer or dealer may be required to conduct testing under this paragraph).

(i) Warranty period

(1) In general

For purposes of subsection (a)(1) and subsection (b) of this section, the warranty period, effective with respect to new light-duty trucks and new light-duty vehicles and engines, manufactured in the model year 1995 and thereafter, shall be the first 2 years or 24,000 miles of use (whichever first occurs), except as provided in paragraph (2). For purposes of subsection (a)(1) and subsection (b), for other vehicles and engines the warranty period shall be the period established by the Administrator by regulation (promulgated prior to November 15, 1990) for such purposes unless the Administrator subsequently modifies such regulation.

(2) Specified major emission control components

In the case of a specified major emission control component, the warranty period for new light-duty trucks and new light-duty vehicles and engines manufactured in the model year 1995 and thereafter for purposes of subsection (a)(1) and subsection (b) shall be 8 years or 80,000 miles of use (whichever first occurs). As used in this paragraph, the term ''specified major emission control component'' means only a catalytic converter, an electronic emissions control unit, and an onboard emissions diagnostic device, except that the Administrator may designate any other pollution control device or component as a specified major emission control component if—

(A) the device or component was not in general use on vehicles and engines manufactured prior to the model year 1990; and

(B) the Administrator determines that the retail cost (exclusive of installation costs) of such device or component exceeds $200 (in 1989 dollars), adjusted for inflation or deflation as calculated by the Administrator at the time of such determination.

For purposes of this paragraph, the term ''onboard emissions diagnostic device'' means any device installed for the purpose of storing or processing emissions related diagnostic information, but not including any parts or other systems which it monitors except specified major emissions control components. Nothing in this chapter shall be construed to provide that any part (other than a part referred to in the preceding sentence) shall be required to be warranted under this chapter for the period of 8 years or 80,000 miles referred to in this paragraph.

(3) Instructions

Subparagraph (A) of subsection (b)(2) shall apply only where the Administrator has made a determination that the instructions concerned conform to the requirements of subsection (c)(3).

(July 14, 1955, ch. 360, title II, § 207, as added Pub. L. 91–604, § 8(a), Dec. 31, 1970, 84 Stat. 1696; amended Pub. L. 95–95, title II, §§ 205, 208–210, 212, Aug. 7, 1977, 91 Stat. 754–756, 758; Pub. L. 95–190, § 14(a)(70)–(72), Nov. 16, 1977, 91 Stat. 1403; Pub. L. 101–549, title II, §§ 209, 210, 230(9), Nov. 15, 1990, 104 Stat. 2484, 2485, 2529; Pub. L. 113–109, § 1, June 9, 2014, 128 Stat. 1170.)

CODIFICATION

Section was formerly classified to section 1857f–5a of this title.

PRIOR PROVISIONS

A prior section 207 of act July 14, 1955, was renumbered section 208 by Pub. L. 91–604 and is classified to section 7542 of this title.

AMENDMENTS

2014—Subsec. (h). Pub. L. 113–109 redesignated pars. (2) and (3) as (1) and (2), respectively, and struck out former par. (1) which read as follows: ''Upon the sale of each new light-duty motor vehicle by a dealer, the dealer shall furnish to the purchaser a certificate that such motor vehicle conforms to the applicable regulations under section 7521 of this title, including notice of the purchaser's rights under paragraph (2).''

1990—Subsec. (a)(1). Pub. L. 101–549, § 209(4), inserted at end ''In the case of vehicles and engines manufactured in the model year 1995 and thereafter such warranty shall require that the vehicle or engine is free from any such defects for the warranty period provided under subsection (i).''

Subsec. (b). Pub. L. 101–549, § 209(1), (2), substituted ''the warranty period (as determined under subsection (i))'' for ''useful life (as determined under section 7521(d) of this title)'' in introductory provisions and par. (2)(B), and struck out closing provisions which read as follows: ''For purposes of the warranty under this subsection, for the period after twenty-four months or twenty-four thousand miles (whichever first occurs) the term 'emission control device or system' means a catalytic converter, thermal reactor, or other component installed on or in a vehicle for the sole or primary purpose of reducing vehicle emissions. Such term shall not include those vehicle components which were in general use prior to model year 1968.''

Subsec. (c)(4) to (6). Pub. L. 101–549, § 210, added pars. (4) to (6).

Subsec. (g). Pub. L. 101–549, § 230(9), substituted ''the last sentence of subsection (a)(3))'' for ''the last three sentences of subsection (a)(1)''.

Subsec. (i). Pub. L. 101–549, § 209(3), added subsec. (i).

1977—Subsec. (a). Pub. L. 95–190, § 14(a)(70), designated provisions contained in cl. (3) of subsec. (a), formerly set out as containing cls. (1), (2), and (3), to be par. (3) of subsec. (a) after the amendment by Pub. L. 95–95, § 209(b), which designated provisions of former subsec. (a) as par. (1) and former cls. (1) and (2) as (A) and (B) of par. (1) and added a new par. (2).

Pub. L. 95–95, § 205, added cl. (3).

Subsec. (b). Pub. L. 95–95, § 209(a), (c), inserted provisions to par. (2) that no warranty be held invalid on the basis of any part used in the maintenance or repair of a vehicle or engine if the part was certified as provided in subsec. (a)(2) of this section, and, following par. (2), inserted provisions defining ''emission control device or system''.

Subsec. (c)(3). Pub. L. 95–95, § 208, designated existing provisions as subpars. (A) and (C), added requirement for the bold face printing of a required notice on the first page of the written maintenance instructions in subpar. (A), and added subpar. (B).

Subsec. (f). Pub. L. 95–190, § 14(a)(71), redesignated subsec. (f) as added by Pub. L. 95–95, § 212, as (h).

Subsec. (g). Pub. L. 95–95, § 210, added subsec. (g).

Subsec. (h). Pub. L. 95–190, § 14(a)(71), redesignated subsec. (f) as added by Pub. L. 95–95, § 212, as (h).

Subsec. (h)(2). Pub. L. 95–190, § 14(a)(72), substituted ''determined under'' for ''determined and''.

EFFECTIVE DATE OF 1990 AMENDMENT

Pub. L. 101–549, title II, § 209, Nov. 15, 1990, 104 Stat. 2484, provided that the amendments made by that section are effective with respect to new motor vehicles and engines manufactured in model year 1995 and thereafter.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

EFFECTIVE DATE

Section not applicable to vehicles or engines imported into United States before sixtieth day after Dec. 31, 1970, see section 8(b) of Pub. L. 91–604, set out as a note under section 7525 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7542. Information collection

(a) Manufacturer's responsibility

Every manufacturer of new motor vehicles or new motor vehicle engines, and every manufacturer of new motor vehicle or engine parts or components, and other persons subject to the requirements of this part or part C, shall establish and maintain records, perform tests where such testing is not otherwise reasonably available under this part and part C (including fees for testing), make reports and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance with this part and part C and regulations thereunder, or to otherwise carry out the provision of this part and part C, and shall, upon request of an officer or employee duly designated by the Administrator, permit such officer or employee at reasonable times to have access to and copy such records.

(b) Enforcement authority

For the purposes of enforcement of this section, officers or employees duly designated by the Administrator upon presenting appropriate credentials are authorized—

(1) to enter, at reasonable times, any establishment of the manufacturer, or of any person whom the manufacturer engages to perform any activity required by subsection (a), for the purposes of inspecting or observing any activity conducted pursuant to subsection (a), and

(2) to inspect records, files, papers, processes, controls, and facilities used in performing any activity required by subsection (a), by such manufacturer or by any person whom the manufacturer engages to perform any such activity.

(c) Availability to public; trade secrets

Any records, reports, or information obtained under this part or part C shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or a particular portion thereof (other than emission data), to which the Administrator has access under this section, if made public, would divulge methods or processes entitled to protection as trade secrets of that person, the Administrator shall consider the record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18. Any authorized representative of the Administrator shall be considered an employee of the United States for purposes of section 1905 of title 18. Nothing in this section shall prohibit the Administrator or authorized representative of the Administrator from disclosing records, reports or information to other officers, employees or authorized representatives of the United States concerned with carrying out this chapter or when relevant in any proceeding under this chapter. Nothing in this section shall authorize the withholding of information by the Administrator or any officer or employee under the Administrator's control from the duly authorized committees of the Congress.

(July 14, 1955, ch. 360, title II, § 208, formerly § 207, as added Pub. L. 89–272, title I, § 101(8), Oct. 20, 1965, 79 Stat. 994; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 501; renumbered and amended Pub. L. 91–604, §§ 8(a), 10(a), 11(a)(2)(A), 15(c)(2), Dec. 31, 1970, 84 Stat. 1694, 1700, 1705, 1713; Pub. L. 101–549, title II, § 211, Nov. 15, 1990, 104 Stat. 2487.)

CODIFICATION

Section was formerly classified to section 1857f–6 of this title.

PRIOR PROVISIONS

A prior section 208 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 501, was renumbered section 209 by Pub. L. 91–604 and is classified to section 7543 of this title.

Another prior section 208 of act July 14, 1955, as added Oct. 20, 1965, Pub. L. 89–272, title I, § 101(8), 79 Stat. 994, was renumbered section 212 by Pub. L. 90–148, renumbered section 213 by Pub. L. 91–604, renumbered 214 by Pub. L. 93–319, and renumbered section 216 by Pub. L. 95–95, and is classified to section 7550 of this title.

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), manufacturer's responsibility; and in subsec. (b), availability to public except for trade secrets.

1970—Subsec. (a). Pub. L. 91–604, §§ 11(a)(2)(A), 15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing and ''part'' for ''subchapter''.

Subsec. (b). Pub. L. 91–604, §§ 10(a), 15(c)(2), substituted provisions authorizing the Administrator to make available to the public any records, reports, of information obtained under subsec. (a) of this section, except those shown to the Administrator to be entitled to protection as trade secrets, for provisions that all information reported or otherwise obtained by the Secretary or his representative pursuant to subsec. (a) of this section, which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18, be considered confidential for the purpose of

such section 1905, and substituted ''Administrator'' for ''Secretary''.

1967—Pub. L. 90–148 reenacted section without change.

§ 7543. State standards

(a) Prohibition

No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.

(b) Waiver

(1) The Administrator shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such waiver shall be granted if the Administrator finds that—

(A) the determination of the State is arbitrary and capricious,

(B) such State does not need such State standards to meet compelling and extraordinary conditions, or

(C) such State standards and accompanying enforcement procedures are not consistent with section 7521(a) of this title.

(2) If each State standard is at least as stringent as the comparable applicable Federal standard, such State standard shall be deemed to be at least as protective of health and welfare as such Federal standards for purposes of paragraph (1).

(3) In the case of any new motor vehicle or new motor vehicle engine to which State standards apply pursuant to a waiver granted under paragraph (1), compliance with such State standards shall be treated as compliance with applicable Federal standards for purposes of this subchapter.

(c) Certification of vehicle parts or engine parts

Whenever a regulation with respect to any motor vehicle part or motor vehicle engine part is in effect under section 7541(a)(2) of this title, no State or political subdivision thereof shall adopt or attempt to enforce any standard or any requirement of certification, inspection, or approval which relates to motor vehicle emissions and is applicable to the same aspect of such part. The preceding sentence shall not apply in the case of a State with respect to which a waiver is in effect under subsection (b).

(d) Control, regulation, or restrictions on registered or licensed motor vehicles

Nothing in this part shall preclude or deny to any State or political subdivision thereof the right otherwise to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles.

(e) Nonroad engines or vehicles

(1) Prohibition on certain State standards

No State or any political subdivision thereof shall adopt or attempt to enforce any standard or other requirement relating to the control of emissions from either of the following new nonroad engines or nonroad vehicles subject to regulation under this chapter—

(A) New engines which are used in construction equipment or vehicles or used in farm equipment or vehicles and which are smaller than 175 horsepower.

(B) New locomotives or new engines used in locomotives.

Subsection (b) shall not apply for purposes of this paragraph.

(2) Other nonroad engines or vehicles

(A) In the case of any nonroad vehicles or engines other than those referred to in subparagraph (A) or (B) of paragraph (1), the Administrator shall, after notice and opportunity for public hearing, authorize California to adopt and enforce standards and other requirements relating to the control of emissions from such vehicles or engines if California determines that California standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such authorization shall be granted if the Administrator finds that—

(i) the determination of California is arbitrary and capricious,

(ii) California does not need such California standards to meet compelling and extraordinary conditions, or

(iii) California standards and accompanying enforcement procedures are not consistent with this section.

(B) Any State other than California which has plan provisions approved under part D of subchapter I may adopt and enforce, after notice to the Administrator, for any period, standards relating to control of emissions from nonroad vehicles or engines (other than those referred to in subparagraph (A) or (B) of paragraph (1)) and take such other actions as are referred to in subparagraph (A) of this paragraph respecting such vehicles or engines if—

(i) such standards and implementation and enforcement are identical, for the period concerned, to the California standards authorized by the Administrator under subparagraph (A), and

(ii) California and such State adopt such standards at least 2 years before commencement of the period for which the standards take effect.

The Administrator shall issue regulations to implement this subsection.

(July 14, 1955, ch. 360, title II, § 209, formerly § 208, as added Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 501; renumbered and amended Pub. L. 91–604, §§ 8(a), 11(a)(2)(A), 15(c)(2), Dec. 31, 1970, 84 Stat. 1694, 1705, 1713; Pub. L. 95–95, title II, §§ 207,

221, Aug. 7, 1977, 91 Stat. 755, 762; Pub. L. 101–549, title II, § 222(b), Nov. 15, 1990, 104 Stat. 2502.)

CODIFICATION

Section was formerly classified to section 1857f–6a of this title.

PRIOR PROVISIONS

A prior section 209 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 502, was renumbered section 210 by Pub. L. 91–604 and is classified to section 7544 of this title.

Another prior section 209 of act July 14, 1955, ch. 360, title II, as added Oct. 20, 1965, Pub. L. 89–272, title I, § 101(8), 79 Stat. 995, related to appropriations for the fiscal years ending June 30, 1966, 1967, 1968, and 1969, and was classified to section 1857f–8 of this title, prior to repeal by Pub. L. 89–675, § 2(b), Oct. 15, 1966, 80 Stat. 954.

AMENDMENTS

1990—Subsec. (e). Pub. L. 101–549 added subsec. (e).

1977—Subsec. (b). Pub. L. 95–95, § 207, designated existing provisions as par. (1), substituted ''March 30, 1966, if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards'' for ''March 30, 1966, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling the extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with section 7521(a) of this title'', added subpars. (A), (B), and (C), and added pars. (2) and (3).

Subsecs. (c), (d). Pub. L. 95–95, § 221, added subsec. (c) and redesignated former subsec. (c) as (d).

1970—Subsec. (a). Pub. L. 91–604, § 11(a)(2)(A), substituted ''part'' for ''subchapter''.

Subsec. (b). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary''.

Subsec. (c). Pub. L. 91–604, § 11(a)(2)(A), substituted ''part'' for ''subchapter''.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7544. State grants

The Administrator is authorized to make grants to appropriate State agencies in an amount up to two-thirds of the cost of developing and maintaining effective vehicle emission devices and systems inspection and emission testing and control programs, except that—

(1) no such grant shall be made for any part of any State vehicle inspection program which does not directly relate to the cost of the air pollution control aspects of such a program;

(2) no such grant shall be made unless the Secretary of Transportation has certified to the Administrator that such program is consistent with any highway safety program developed pursuant to section 402 of title 23; and

(3) no such grant shall be made unless the program includes provisions designed to insure that emission control devices and systems on vehicles in actual use have not been discontinued or rendered inoperative.

Grants may be made under this section by way of reimbursement in any case in which amounts have been expended by the State before the date on which any such grant was made.

(July 14, 1955, ch. 360, title II, § 210, formerly § 209, as added Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 502; renumbered and amended Pub. L. 91–604, §§ 8(a), 10(b), Dec. 31, 1970, 84 Stat. 1694, 1700; Pub. L. 95–95, title II, § 204, Aug. 7, 1977, 91 Stat. 754.)

CODIFICATION

Section was formerly classified to section 1857f–6b of this title.

PRIOR PROVISIONS

A prior section 210 of act July 14, 1955, was renumbered section 211 by Pub. L. 91–604 and is classified to section 7545 of this title.

AMENDMENTS

1977—Pub. L. 95–95 inserted provision allowing grants to be made by way of reimbursement in any case in which amounts have been expended by States before the date on which the grants were made.

1970—Pub. L. 91–604, § 10(b), substituted provisions authorizing the Administrator to make grants to appropriate State agencies for the development and maintenance of effective vehicle emission devices and systems inspection and emission testing and control programs, for provisions authorizing the Secretary to make grants to appropriate State air pollution control agencies for the development of meaningful uniform motor vehicle emission device inspection and emission testing programs.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

§ 7545. Regulation of fuels

(a) Authority of Administrator to regulate

The Administrator may by regulation designate any fuel or fuel additive (including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles) and, after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel or additive may sell, offer for sale, or introduce into commerce such fuel or additive unless the Administrator has registered such fuel or additive in accordance with subsection (b) of this section.

(b) Registration requirement

(1) For the purpose of registration of fuels and fuel additives, the Administrator shall require—

(A) the manufacturer of any fuel to notify him as to the commercial identifying name and manufacturer of any additive contained in such fuel; the range of concentration of any additive in the fuel; and the purpose-in-use of any such additive; and

(B) the manufacturer of any additive to notify him as to the chemical composition of such additive.

(2) For the purpose of registration of fuels and fuel additives, the Administrator shall, on a regular basis, require the manufacturer of any fuel or fuel additive—

(A) to conduct tests to determine potential public health and environmental effects of the fuel or additive (including carcinogenic, teratogenic, or mutagenic effects); and

(B) to furnish the description of any analytical technique that can be used to detect and measure any additive in such fuel, the recommended range of concentration of such additive, and the recommended purpose-in-use of such additive, and such other information as is reasonable and necessary to determine the emissions resulting from the use of the fuel or additive contained in such fuel, the effect of such fuel or additive on the emission control performance of any vehicle, vehicle engine, nonroad engine or nonroad vehicle, or the extent to which such emissions affect the public health or welfare.

Tests under subparagraph (A) shall be conducted in conformity with test procedures and protocols established by the Administrator. The result of such tests shall not be considered confidential.

(3) Upon compliance with the provision of this subsection, including assurances that the Administrator will receive changes in the information required, the Administrator shall register such fuel or fuel additive.

(4) STUDY ON CERTAIN FUEL ADDITIVES AND BLENDSTOCKS.—

(A) IN GENERAL.—Not later than 2 years after August 8, 2005, the Administrator shall—

(i) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of increased use of, and the feasibility of using as substitutes for methyl tertiary butyl ether in gasoline—

(I) ethyl tertiary butyl ether;

(II) tertiary amyl methyl ether;

(III) di-isopropyl ether;

(IV) tertiary butyl alcohol;

(V) other ethers and heavy alcohols, as determined by then[1] Administrator;

(VI) ethanol;

(VII) iso-octane; and

(VIII) alkylates; and

(ii) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of the adjustment for ethanol-blended reformulated gasoline to the volatile organic compounds performance requirements that are applicable under paragraphs (1) and (3) of subsection (k); and

(iii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of the studies under clauses (i) and (ii).

(B) CONTRACTS FOR STUDY.—In carrying out this paragraph, the Administrator may enter into one or more contracts with nongovernmental entities such as—

(i) the national energy laboratories; and

(ii) institutions of higher education (as defined in section 1001 of title 20).

(c) Offending fuels and fuel additives; control; prohibition

(1) The Administrator may, from time to time on the basis of information obtained under subsection (b) of this section or other information available to him, by regulation, control or prohibit the manufacture, introduction into commerce, offering for sale, or sale of any fuel or fuel additive for use in a motor vehicle, motor vehicle engine, or nonroad engine or nonroad vehicle if, in the judgment of the Administrator, any fuel or fuel additive or any emission product of such fuel or fuel additive causes, or contributes, to air pollution or water pollution (including any degradation in the quality of groundwater) that may reasonably be anticipated to endanger the public health or welfare, or (B)[2] if emission products of such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use were such regulation to be promulgated.

(2)(A) No fuel, class of fuels, or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (A) of paragraph (1) except after consideration of all relevant medical and scientific evidence available to him, including consideration of other technologically or economically feasible means of achieving emission standards under section 7521 of this title.

(B) No fuel or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (B) of paragraph (1) except after consideration of available scientific and economic data, including a cost benefit analysis comparing emission control devices or systems which are or will be in general use and require the proposed control or prohibition with emission control devices or systems which are or will be in general use and do not require the proposed control or prohibition. On request of a manufacturer of motor vehicles, motor vehicle engines, fuels, or fuel additives submitted within 10 days of notice of proposed rulemaking, the Administrator shall hold a public hearing and publish findings with respect to any matter he is required to consider under this subparagraph. Such findings shall be published at the time of promulgation of final regulations.

(C) No fuel or fuel additive may be prohibited by the Administrator under paragraph (1) unless he finds, and publishes such finding, that in his judgment such prohibition will not cause the use of any other fuel or fuel additive which will produce emissions which will endanger the pub-

[1] So in original. Probably should be ''the''.

[2] So in original. Par. (1) does not contain a cl. (A).

lic health or welfare to the same or greater degree than the use of the fuel or fuel additive proposed to be prohibited.

(3)(A) For the purpose of obtaining evidence and data to carry out paragraph (2), the Administrator may require the manufacturer of any motor vehicle or motor vehicle engine to furnish any information which has been developed concerning the emissions from motor vehicles resulting from the use of any fuel or fuel additive, or the effect of such use on the performance of any emission control device or system.

(B) In obtaining information under subparagraph (A), section 7607(a) of this title (relating to subpenas) shall be applicable.

(4)(A) Except as otherwise provided in subparagraph (B) or (C), no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine—

(i) if the Administrator has found that no control or prohibition of the characteristic or component of a fuel or fuel additive under paragraph (1) is necessary and has published his finding in the Federal Register, or

(ii) if the Administrator has prescribed under paragraph (1) a control or prohibition applicable to such characteristic or component of a fuel or fuel additive, unless State prohibition or control is identical to the prohibition or control prescribed by the Administrator.

(B) Any State for which application of section 7543(a) of this title has at any time been waived under section 7543(b) of this title may at any time prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive.

(C)(i) A State may prescribe and enforce, for purposes of motor vehicle emission control, a control or prohibition respecting the use of a fuel or fuel additive in a motor vehicle or motor vehicle engine if an applicable implementation plan for such State under section 7410 of this title so provides. The Administrator may approve such provision in an implementation plan, or promulgate an implementation plan containing such a provision, only if he finds that the State control or prohibition is necessary to achieve the national primary or secondary ambient air quality standard which the plan implements. The Administrator may find that a State control or prohibition is necessary to achieve that standard if no other measures that would bring about timely attainment exist, or if other measures exist and are technically possible to implement, but are unreasonable or impracticable. The Administrator may make a finding of necessity under this subparagraph even if the plan for the area does not contain an approved demonstration of timely attainment.

(ii) The Administrator may temporarily waive a control or prohibition respecting the use of a fuel or fuel additive required or regulated by the Administrator pursuant to subsection (c), (h), (i), (k), or (m) of this section or prescribed in an applicable implementation plan under section 7410 of this title approved by the Administrator under clause (i) of this subparagraph if, after consultation with, and concurrence by, the Secretary of Energy, the Administrator determines that—

(I) extreme and unusual fuel or fuel additive supply circumstances exist in a State or region of the Nation which prevent the distribution of an adequate supply of the fuel or fuel additive to consumers;

(II) such extreme and unusual fuel and fuel additive supply circumstances are the result of a natural disaster, an Act of God, a pipeline or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented and not the lack of prudent planning on the part of the suppliers of the fuel or fuel additive to such State or region; and

(III) it is in the public interest to grant the waiver (for example, when a waiver is necessary to meet projected temporary shortfalls in the supply of the fuel or fuel additive in a State or region of the Nation which cannot otherwise be compensated for).

(iii) If the Administrator makes the determinations required under clause (ii), such a temporary extreme and unusual fuel and fuel additive supply circumstances waiver shall be permitted only if—

(I) the waiver applies to the smallest geographic area necessary to address the extreme and unusual fuel and fuel additive supply circumstances;

(II) the waiver is effective for a period of 20 calendar days or, if the Administrator determines that a shorter waiver period is adequate, for the shortest practicable time period necessary to permit the correction of the extreme and unusual fuel and fuel additive supply circumstances and to mitigate impact on air quality;

(III) the waiver permits a transitional period, the exact duration of which shall be determined by the Administrator (but which shall be for the shortest practicable period), after the termination of the temporary waiver to permit wholesalers and retailers to blend down their wholesale and retail inventory;

(IV) the waiver applies to all persons in the motor fuel distribution system; and

(V) the Administrator has given public notice to all parties in the motor fuel distribution system, and local and State regulators, in the State or region to be covered by the waiver.

The term ''motor fuel distribution system'' as used in this clause shall be defined by the Administrator through rulemaking.

(iv) Within 180 days of August 8, 2005, the Administrator shall promulgate regulations to implement clauses (ii) and (iii).

(v)[3] Nothing in this subparagraph shall—

(I) limit or otherwise affect the application of any other waiver authority of the Administrator pursuant to this section or pursuant to a regulation promulgated pursuant to this section; and

(II) subject any State or person to an enforcement action, penalties, or liability solely

[3] So in original. Two cls. (v) have been enacted.

arising from actions taken pursuant to the issuance of a waiver under this subparagraph.

(v)(I)[3] The Administrator shall have no authority, when considering a State implementation plan or a State implementation plan revision, to approve under this paragraph any fuel included in such plan or revision if the effect of such approval increases the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans.

(II) The Administrator, in consultation with the Secretary of Energy, shall determine the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans and shall publish a list of such fuels, including the States and Petroleum Administration for Defense District in which they are used, in the Federal Register for public review and comment no later than 90 days after August 8, 2005.

(III) The Administrator shall remove a fuel from the list published under subclause (II) if a fuel ceases to be included in a State implementation plan or if a fuel in a State implementation plan is identical to a Federal fuel formulation implemented by the Administrator, but the Administrator shall not reduce the total number of fuels authorized under the list published under subclause (II).

(IV) Subclause (I) shall not limit the Administrator's authority to approve a control or prohibition respecting any new fuel under this paragraph in a State implementation plan or revision to a State implementation plan if such new fuel—

(aa) completely replaces a fuel on the list published under subclause (II); or

(bb) does not increase the total number of fuels on the list published under subclause (II) as of September 1, 2004.

In the event that the total number of fuels on the list published under subclause (II) at the time of the Administrator's consideration of a control or prohibition respecting a new fuel is lower than the total number of fuels on such list as of September 1, 2004, the Administrator may approve a control or prohibition respecting a new fuel under this subclause if the Administrator, after consultation with the Secretary of Energy, publishes in the Federal Register after notice and comment a finding that, in the Administrator's judgment, such control or prohibition respecting a new fuel will not cause fuel supply or distribution interruptions or have a significant adverse impact on fuel producibility in the affected area or contiguous areas.

(V) The Administrator shall have no authority under this paragraph, when considering any particular State's implementation plan or a revision to that State's implementation plan, to approve any fuel unless that fuel was, as of the date of such consideration, approved in at least one State implementation plan in the applicable Petroleum Administration for Defense District. However, the Administrator may approve as part of a State implementation plan or State implementation plan revision a fuel with a summertime Reid Vapor Pressure of 7.0 psi. In no event shall such approval by the Administrator cause an increase in the total number of fuels on the list published under subclause (II).

(VI) Nothing in this clause shall be construed to have any effect regarding any available authority of States to require the use of any fuel additive registered in accordance with subsection (b), including any fuel additive registered in accordance with subsection (b) after August 8, 2005.

(d) Penalties and injunctions

(1) Civil penalties

Any person who violates subsection (a), (f), (g), (k), (*l*), (m), (n), or (*o*) of this section or the regulations prescribed under subsection (c), (h), (i), (k), (*l*), (m), (n), or (*o*) of this section or who fails to furnish any information or conduct any tests required by the Administrator under subsection (b) of this section shall be liable to the United States for a civil penalty of not more than the sum of $25,000 for every day of such violation and the amount of economic benefit or savings resulting from the violation. Any violation with respect to a regulation prescribed under subsection (c), (k), (*l*), (m), or (*o*) of this section which establishes a regulatory standard based upon a multiday averaging period shall constitute a separate day of violation for each and every day in the averaging period. Civil penalties shall be assessed in accordance with subsections (b) and (c) of section 7524 of this title.

(2) Injunctive authority

The district courts of the United States shall have jurisdiction to restrain violations of subsections (a), (f), (g), (k), (*l*), (m), (n), and (*o*) of this section and of the regulations prescribed under subsections (c), (h), (i), (k), (*l*), (m), (n), and (*o*) of this section, to award other appropriate relief, and to compel the furnishing of information and the conduct of tests required by the Administrator under subsection (b) of this section. Actions to restrain such violations and compel such actions shall be brought by and in the name of the United States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

(e) Testing of fuels and fuel additives

(1) Not later than one year after August 7, 1977, and after notice and opportunity for a public hearing, the Administrator shall promulgate regulations which implement the authority under subsection (b)(2)(A) and (B) with respect to each fuel or fuel additive which is registered on the date of promulgation of such regulations and with respect to each fuel or fuel additive for which an application for registration is filed thereafter.

(2) Regulations under subsection (b) to carry out this subsection shall require that the requisite information be provided to the Administrator by each such manufacturer—

(A) prior to registration, in the case of any fuel or fuel additive which is not registered on the date of promulgation of such regulations; or

(B) not later than three years after the date of promulgation of such regulations, in the

case of any fuel or fuel additive which is registered on such date.

(3) In promulgating such regulations, the Administrator may—

(A) exempt any small business (as defined in such regulations) from or defer or modify the requirements of, such regulations with respect to any such small business;

(B) provide for cost-sharing with respect to the testing of any fuel or fuel additive which is manufactured or processed by two or more persons or otherwise provide for shared responsibility to meet the requirements of this section without duplication; or

(C) exempt any person from such regulations with respect to a particular fuel or fuel additive upon a finding that any additional testing of such fuel or fuel additive would be duplicative of adequate existing testing.

(f) New fuels and fuel additives

(1)(A) Effective upon March 31, 1977, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for general use in light duty motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 7525 of this title.

(B) Effective upon November 15, 1990, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for use by any person in motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 7525 of this title.

(2) Effective November 30, 1977, it shall be unlawful for any manufacturer of any fuel to introduce into commerce any gasoline which contains a concentration of manganese in excess of .0625 grams per gallon of fuel, except as otherwise provided pursuant to a waiver under paragraph (4).

(3) Any manufacturer of any fuel or fuel additive which prior to March 31, 1977, and after January 1, 1974, first introduced into commerce or increased the concentration in use of a fuel or fuel additive that would otherwise have been prohibited under paragraph (1)(A) if introduced on or after March 31, 1977 shall, not later than September 15, 1978, cease to distribute such fuel or fuel additive in commerce. During the period beginning 180 days after August 7, 1977, and before September 15, 1978, the Administrator shall prohibit, or restrict the concentration of any fuel additive which he determines will cause or contribute to the failure of an emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the emission standards with respect to which it has been certified under section 7525 of this title.

(4) The Administrator, upon application of any manufacturer of any fuel or fuel additive, may waive the prohibitions established under paragraph (1) or (3) of this subsection or the limitation specified in paragraph (2) of this subsection, if he determines that the applicant has established that such fuel or fuel additive or a specified concentration thereof, and the emission products of such fuel or fuel additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle, motor vehicle engine, nonroad engine or nonroad vehicle in which such device or system is used) to achieve compliance by the vehicle or engine with the emission standards with respect to which it has been certified pursuant to sections 7525 and 7547(a) of this title. The Administrator shall take final action to grant or deny an application submitted under this paragraph, after public notice and comment, within 270 days of the receipt of such an application.

(5) No action of the Administrator under this section may be stayed by any court pending judicial review of such action.

(g) Misfueling

(1) No person shall introduce, or cause or allow the introduction of, leaded gasoline into any motor vehicle which is labeled ''unleaded gasoline only,'' which is equipped with a gasoline tank filler inlet designed for the introduction of unleaded gasoline, which is a 1990 or later model year motor vehicle, or which such person knows or should know is a vehicle designed solely for the use of unleaded gasoline.

(2) Beginning October 1, 1993, no person shall introduce or cause or allow the introduction into any motor vehicle of diesel fuel which such person knows or should know contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40 or such equivalent alternative aromatic level as prescribed by the Administrator under subsection (i)(2).

(h) Reid Vapor Pressure requirements

(1) Prohibition

Not later than 6 months after November 15, 1990, the Administrator shall promulgate regulations making it unlawful for any person during the high ozone season (as defined by the Administrator) to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure in excess of 9.0 pounds per square inch (psi). Such regulations shall also establish more stringent Reid Vapor Pressure standards in a nonattainment area as the Administrator finds necessary to generally achieve comparable evaporative emissions (on a per-vehicle basis) in nonattainment areas, taking into consideration the enforceability of such standards, the need of an area for emission control, and economic factors.

(2) Attainment areas

The regulations under this subsection shall not make it unlawful for any person to sell, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure of 9.0 pounds per square inch (psi) or lower in any area designated under section 7407 of this title as an attainment area. Not-

withstanding the preceding sentence, the Administrator may impose a Reid vapor pressure requirement lower than 9.0 pounds per square inch (psi) in any area, formerly an ozone nonattainment area, which has been redesignated as an attainment area.

(3) Effective date; enforcement

The regulations under this subsection shall provide that the requirements of this subsection shall take effect not later than the high ozone season for 1992, and shall include such provisions as the Administrator determines are necessary to implement and enforce the requirements of this subsection.

(4) Ethanol waiver

For fuel blends containing gasoline and 10 percent denatured anhydrous ethanol, the Reid vapor pressure limitation under this subsection shall be one pound per square inch (psi) greater than the applicable Reid vapor pressure limitations established under paragraph (1); *Provided, however*, That a distributor, blender, marketer, reseller, carrier, retailer, or wholesale purchaser-consumer shall be deemed to be in full compliance with the provisions of this subsection and the regulations promulgated thereunder if it can demonstrate (by showing receipt of a certification or other evidence acceptable to the Administrator) that—

(A) the gasoline portion of the blend complies with the Reid vapor pressure limitations promulgated pursuant to this subsection;

(B) the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4); and

(C) no additional alcohol or other additive has been added to increase the Reid Vapor Pressure of the ethanol portion of the blend.

(5) Exclusion from ethanol waiver

(A) Promulgation of regulations

Upon notification, accompanied by supporting documentation, from the Governor of a State that the Reid vapor pressure limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the Reid vapor pressure limitation established by paragraph (4), the Reid vapor pressure limitation established by paragraph (1) to all fuel blends containing gasoline and 10 percent denatured anhydrous ethanol that are sold, offered for sale, dispensed, supplied, offered for supply, transported, or introduced into commerce in the area during the high ozone season.

(B) Deadline for promulgation

The Administrator shall promulgate regulations under subparagraph (A) not later than 90 days after the date of receipt of a notification from a Governor under that subparagraph.

(C) Effective date

(i) In general

With respect to an area in a State for which the Governor submits a notification under subparagraph (A), the regulations under that subparagraph shall take effect on the later of—

(I) the first day of the first high ozone season for the area that begins after the date of receipt of the notification; or

(II) 1 year after the date of receipt of the notification.

(ii) Extension of effective date based on determination of insufficient supply

(I) In general

If, after receipt of a notification with respect to an area from a Governor of a State under subparagraph (A), the Administrator determines, on the Administrator's own motion or on petition of any person and after consultation with the Secretary of Energy, that the promulgation of regulations described in subparagraph (A) would result in an insufficient supply of gasoline in the State, the Administrator, by regulation—

(aa) shall extend the effective date of the regulations under clause (i) with respect to the area for not more than 1 year; and

(bb) may renew the extension under item (aa) for two additional periods, each of which shall not exceed 1 year.

(II) Deadline for action on petitions

The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.

(6) Areas covered

The provisions of this subsection shall apply only to the 48 contiguous States and the District of Columbia.

(i) Sulfur content requirements for diesel fuel

(1) Effective October 1, 1993, no person shall manufacture, sell, supply, offer for sale or supply, dispense, transport, or introduce into commerce motor vehicle diesel fuel which contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40.

(2) Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations to implement and enforce the requirements of paragraph (1). The Administrator may require manufacturers and importers of diesel fuel not intended for use in motor vehicles to dye such fuel in a particular manner in order to segregate it from motor vehicle diesel fuel. The Administrator may establish an equivalent alternative aromatic level to the cetane index specification in paragraph (1).

(3) The sulfur content of fuel required to be used in the certification of 1991 through 1993 model year heavy-duty diesel vehicles and engines shall be 0.10 percent (by weight). The sulfur content and cetane index minimum of fuel required to be used in the certification of 1994 and later model year heavy-duty diesel vehicles and engines shall comply with the regulations promulgated under paragraph (2).

(4) The States of Alaska and Hawaii may be exempted from the requirements of this sub-

section in the same manner as provided in section 7625[4] of this title. The Administrator shall take final action on any petition filed under section 7625[4] of this title or this paragraph for an exemption from the requirements of this subsection, within 12 months from the date of the petition.

(j) Lead substitute gasoline additives

(1) After November 15, 1990, any person proposing to register any gasoline additive under subsection (a) or to use any previously registered additive as a lead substitute may also elect to register the additive as a lead substitute gasoline additive for reducing valve seat wear by providing the Administrator with such relevant information regarding product identity and composition as the Administrator deems necessary for carrying out the responsibilities of paragraph (2) of this subsection (in addition to other information which may be required under subsection (b)).

(2) In addition to the other testing which may be required under subsection (b), in the case of the lead substitute gasoline additives referred to in paragraph (1), the Administrator shall develop and publish a test procedure to determine the additives' effectiveness in reducing valve seat wear and the additives' tendencies to produce engine deposits and other adverse side effects. The test procedures shall be developed in cooperation with the Secretary of Agriculture and with the input of additive manufacturers, engine and engine components manufacturers, and other interested persons. The Administrator shall enter into arrangements with an independent laboratory to conduct tests of each additive using the test procedures developed and published pursuant to this paragraph. The Administrator shall publish the results of the tests by company and additive name in the Federal Register along with, for comparison purposes, the results of applying the same test procedures to gasoline containing 0.1 gram of lead per gallon in lieu of the lead substitute gasoline additive. The Administrator shall not rank or otherwise rate the lead substitute additives. Test procedures shall be established within 1 year after November 15, 1990. Additives shall be tested within 18 months of November 15, 1990, or 6 months after the lead substitute additives are identified to the Administrator, whichever is later.

(3) The Administrator may impose a user fee to recover the costs of testing of any fuel additive referred to in this subsection. The fee shall be paid by the person proposing to register the fuel additive concerned. Such fee shall not exceed $20,000 for a single fuel additive.

(4) There are authorized to be appropriated to the Administrator not more than $1,000,000 for the second full fiscal year after November 15, 1990, to establish test procedures and conduct engine tests as provided in this subsection. Not more than $500,000 per year is authorized to be appropriated for each of the 5 subsequent fiscal years.

(5) Any fees collected under this subsection shall be deposited in a special fund in the United States Treasury for licensing and other services which thereafter shall be available for appropriation, to remain available until expended, to carry out the Agency's activities for which the fees were collected.

(k) Reformulated gasoline for conventional vehicles

(1) EPA regulations

(A) In general

Not later than November 15, 1991, the Administrator shall promulgate regulations under this section establishing requirements for reformulated gasoline to be used in gasoline-fueled vehicles in specified nonattainment areas. Such regulations shall require the greatest reduction in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year) achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements.

(B) Maintenance of toxic air pollutant emissions reductions from reformulated gasoline

(i) Definition of PADD

In this subparagraph the term ''PADD'' means a Petroleum Administration for Defense District.

(ii) Regulations concerning emissions of toxic air pollutants

Not later than 270 days after August 8, 2005, the Administrator shall establish by regulation, for each refinery or importer (other than a refiner or importer in a State that has received a waiver under section 7543(b) of this title with respect to gasoline produced for use in that State), standards for toxic air pollutants from use of the reformulated gasoline produced or distributed by the refiner or importer that maintain the reduction of the average annual aggregate emissions of toxic air pollutants for reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002 (as determined on the basis of data collected by the Administrator with respect to the refiner or importer).

(iii) Standards applicable to specific refineries or importers

(I) Applicability of standards

For any calendar year, the standards applicable to a refiner or importer under clause (ii) shall apply to the quantity of gasoline produced or distributed by the refiner or importer in the calendar year only to the extent that the quantity is less than or equal to the average annual quantity of reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002.

(II) Applicability of other standards

For any calendar year, the quantity of gasoline produced or distributed by a re-

[4] So in original. Probably should be section ''7625–1''.

finer or importer that is in excess of the quantity subject to subclause (I) shall be subject to standards for emissions of toxic air pollutants promulgated under subparagraph (A) and paragraph (3)(B).

(iv) Credit program

The Administrator shall provide for the granting and use of credits for emissions of toxic air pollutants in the same manner as provided in paragraph (7).

(v) Regional protection of toxics reduction baselines

(I) In general

Not later than 60 days after August 8, 2005, and not later than April 1 of each calendar year that begins after August 8, 2005, the Administrator shall publish in the Federal Register a report that specifies, with respect to the previous calendar year—

(aa) the quantity of reformulated gasoline produced that is in excess of the average annual quantity of reformulated gasoline produced in 2001 and 2002; and

(bb) the reduction of the average annual aggregate emissions of toxic air pollutants in each PADD, based on retail survey data or data from other appropriate sources.

(II) Effect of failure to maintain aggregate toxics reductions

If, in any calendar year, the reduction of the average annual aggregate emissions of toxic air pollutants in a PADD fails to meet or exceed the reduction of the average annual aggregate emissions of toxic air pollutants in the PADD in calendar years 2001 and 2002, the Administrator, not later than 90 days after the date of publication of the report for the calendar year under subclause (I), shall—

(aa) identify, to the maximum extent practicable, the reasons for the failure, including the sources, volumes, and characteristics of reformulated gasoline that contributed to the failure; and

(bb) promulgate revisions to the regulations promulgated under clause (ii), to take effect not earlier than 180 days but not later than 270 days after the date of promulgation, to provide that, notwithstanding clause (iii)(II), all reformulated gasoline produced or distributed at each refiner or importer shall meet the standards applicable under clause (iii)(I) beginning not later than April 1 of the calendar year following publication of the report under subclause (I) and in each calendar year thereafter.

(vi) Not later than July 1, 2007, the Administrator shall promulgate final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels, as provided for in section 80.1045 of title 40, Code of Federal Regulations (as in effect on August 8, 2005), and as authorized under section 7521(*l*)[5] of this title. If the Administrator promulgates by such date, final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels that achieve and maintain greater overall reductions in emissions of air toxics from reformulated gasoline than the reductions that would be achieved under subsection (k)(1)(B) as amended by this clause, then subsections (k)(1)(B)(i) through (k)(1)(B)(v) shall be null and void and regulations promulgated thereunder shall be rescinded and have no further effect.

(2) General requirements

The regulations referred to in paragraph (1) shall require that reformulated gasoline comply with paragraph (3) and with each of the following requirements (subject to paragraph (7)):

(A) NO_x emissions

The emissions of oxides of nitrogen (NO_x) from baseline vehicles when using the reformulated gasoline shall be no greater than the level of such emissions from such vehicles when using baseline gasoline. If the Administrator determines that compliance with the limitation on emissions of oxides of nitrogen under the preceding sentence is technically infeasible, considering the other requirements applicable under this subsection to such gasoline, the Administrator may, as appropriate to ensure compliance with this subparagraph, adjust (or waive entirely), any other requirements of this paragraph or any requirements applicable under paragraph (3)(A).

(B) Benzene content

The benzene content of the gasoline shall not exceed 1.0 percent by volume.

(C) Heavy metals

The gasoline shall have no heavy metals, including lead or manganese. The Administrator may waive the prohibition contained in this subparagraph for a heavy metal (other than lead) if the Administrator determines that addition of the heavy metal to the gasoline will not increase, on an aggregate mass or cancer-risk basis, toxic air pollutant emissions from motor vehicles.

(3) More stringent of formula or performance standards

The regulations referred to in paragraph (1) shall require compliance with the more stringent of either the requirements set forth in subparagraph (A) or the requirements of subparagraph (B) of this paragraph. For purposes of determining the more stringent provision, clause (i) and clause (ii) of subparagraph (B) shall be considered independently.

(A) Formula

(i) Benzene

The benzene content of the reformulated gasoline shall not exceed 1.0 percent by volume.

[5] So in original. See References in Text note below.

(ii) Aromatics

The aromatic hydrocarbon content of the reformulated gasoline shall not exceed 25 percent by volume.

(iii) Lead

The reformulated gasoline shall have no lead content.

(iv) Detergents

The reformulated gasoline shall contain additives to prevent the accumulation of deposits in engines or vehicle fuel supply systems.

(B) Performance standard

(i) VOC emissions

During the high ozone season (as defined by the Administrator), the aggregate emissions of ozone forming volatile organic compounds from baseline vehicles when using the reformulated gasoline shall be 15 percent below the aggregate emissions of ozone forming volatile organic compounds from such vehicles when using baseline gasoline. Effective in calendar year 2000 and thereafter, 25 percent shall be substituted for 15 percent in applying this clause, except that the Administrator may adjust such 25 percent requirement to provide for a lesser or greater reduction based on technological feasibility, considering the cost of achieving such reductions in VOC emissions. No such adjustment shall provide for less than a 20 percent reduction below the aggregate emissions of such air pollutants from such vehicles when using baseline gasoline. The reductions required under this clause shall be on a mass basis.

(ii) Toxics

During the entire year, the aggregate emissions of toxic air pollutants from baseline vehicles when using the reformulated gasoline shall be 15 percent below the aggregate emissions of toxic air pollutants from such vehicles when using baseline gasoline. Effective in calendar year 2000 and thereafter, 25 percent shall be substituted for 15 percent in applying this clause, except that the Administrator may adjust such 25 percent requirement to provide for a lesser or greater reduction based on technological feasibility, considering the cost of achieving such reductions in toxic air pollutants. No such adjustment shall provide for less than a 20 percent reduction below the aggregate emissions of such air pollutants from such vehicles when using baseline gasoline. The reductions required under this clause shall be on a mass basis.

Any reduction greater than a specific percentage reduction required under this subparagraph shall be treated as satisfying such percentage reduction requirement.

(4) Certification procedures

(A) Regulations

The regulations under this subsection shall include procedures under which the Administrator shall certify reformulated gasoline as complying with the requirements established pursuant to this subsection. Under such regulations, the Administrator shall establish procedures for any person to petition the Administrator to certify a fuel formulation, or slate of fuel formulations. Such procedures shall further require that the Administrator shall approve or deny such petition within 180 days of receipt. If the Administrator fails to act within such 180-day period, the fuel shall be deemed certified until the Administrator completes action on the petition.

(B) Certification; equivalency

The Administrator shall certify a fuel formulation or slate of fuel formulations as complying with this subsection if such fuel or fuels—

(i) comply with the requirements of paragraph (2), and

(ii) achieve equivalent or greater reductions in emissions of ozone forming volatile organic compounds and emissions of toxic air pollutants than are achieved by a reformulated gasoline meeting the applicable requirements of paragraph (3).

(C) EPA determination of emissions level

Within 1 year after November 15, 1990, the Administrator shall determine the level of emissions of ozone forming volatile organic compounds and emissions of toxic air pollutants emitted by baseline vehicles when operating on baseline gasoline. For purposes of this subsection, within 1 year after November 15, 1990, the Administrator shall, by rule, determine appropriate measures of, and methodology for, ascertaining the emissions of air pollutants (including calculations, equipment, and testing tolerances).

(5) Prohibition

Effective beginning January 1, 1995, each of the following shall be a violation of this subsection:

(A) The sale or dispensing by any person of conventional gasoline to ultimate consumers in any covered area.

(B) The sale or dispensing by any refiner, blender, importer, or marketer of conventional gasoline for resale in any covered area, without (i) segregating such gasoline from reformulated gasoline, and (ii) clearly marking such conventional gasoline as ''conventional gasoline, not for sale to ultimate consumer in a covered area''.

Any refiner, blender, importer or marketer who purchases property[6] segregated and marked conventional gasoline, and thereafter labels, represents, or wholesales such gasoline as reformulated gasoline shall also be in violation of this subsection. The Administrator may impose sampling, testing, and recordkeeping requirements upon any refiner, blender, importer, or marketer to prevent violations of this section.

[6] So in original. Probably should be ''properly''.

(6) Opt-in areas

(A) Classified areas

(i) In general

Upon the application of the Governor of a State, the Administrator shall apply the prohibition set forth in paragraph (5) in any area in the State classified under subpart 2 of part D of subchapter I as a Marginal, Moderate, Serious, or Severe Area (without regard to whether or not the 1980 population of the area exceeds 250,000). In any such case, the Administrator shall establish an effective date for such prohibition as he deems appropriate, not later than January 1, 1995, or 1 year after such application is received, whichever is later. The Administrator shall publish such application in the Federal Register upon receipt.

(ii) Effect of insufficient domestic capacity to produce reformulated gasoline

If the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient domestic capacity to produce gasoline certified under this subsection, the Administrator shall, by rule, extend the effective date of such prohibition in Marginal, Moderate, Serious, or Severe Areas referred to in clause (i) for one additional year, and may, by rule, renew such extension for 2 additional one-year periods. The Administrator shall act on any petition submitted under this subparagraph within 6 months after receipt of the petition. The Administrator shall issue such extensions for areas with a lower ozone classification before issuing any such extension for areas with a higher classification.

(B) Ozone transport region

(i) Application of prohibition

(I) In general

On application of the Governor of a State in the ozone transport region established by section 7511c(a) of this title, the Administrator, not later than 180 days after the date of receipt of the application, shall apply the prohibition specified in paragraph (5) to any area in the State (other than an area classified as a marginal, moderate, serious, or severe ozone nonattainment area under subpart 2 of part D of subchapter I) unless the Administrator determines under clause (iii) that there is insufficient capacity to supply reformulated gasoline.

(II) Publication of application

As soon as practicable after the date of receipt of an application under subclause (I), the Administrator shall publish the application in the Federal Register.

(ii) Period of applicability

Under clause (i), the prohibition specified in paragraph (5) shall apply in a State—

(I) commencing as soon as practicable but not later than 2 years after the date of approval by the Administrator of the application of the Governor of the State; and

(II) ending not earlier than 4 years after the commencement date determined under subclause (I).

(iii) Extension of commencement date based on insufficient capacity

(I) In general

If, after receipt of an application from a Governor of a State under clause (i), the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient capacity to supply reformulated gasoline, the Administrator, by regulation—

(aa) shall extend the commencement date with respect to the State under clause (ii)(I) for not more than 1 year; and

(bb) may renew the extension under item (aa) for 2 additional periods, each of which shall not exceed 1 year.

(II) Deadline for action on petitions

The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.

(7) Credits

(A) The regulations promulgated under this subsection shall provide for the granting of an appropriate amount of credits to a person who refines, blends, or imports and certifies a gasoline or slate of gasoline that—

(i) has an aromatic hydrocarbon content (by volume) that is less than the maximum aromatic hydrocarbon content required to comply with paragraph (3); or

(ii) has a benzene content (by volume) that is less than the maximum benzene content specified in paragraph (2).

(B) The regulations described in subparagraph (A) shall also provide that a person who is granted credits may use such credits, or transfer all or a portion of such credits to another person for use within the same nonattainment area, for the purpose of complying with this subsection.

(C) The regulations promulgated under subparagraphs (A) and (B) shall ensure the enforcement of the requirements for the issuance, application, and transfer of the credits. Such regulations shall prohibit the granting or transfer of such credits for use with respect to any gasoline in a nonattainment area, to the extent the use of such credits would result in any of the following:

(i) An average gasoline aromatic hydrocarbon content (by volume) for the nonattainment (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) higher than the average fuel aromatic hydrocarbon content (by volume) that would occur in the absence of using any such credits.

(ii) An average benzene content (by volume) for the nonattainment area (taking

into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) higher than the average benzene content (by volume) that would occur in the absence of using any such credits.

(8) Anti-dumping rules

(A) In general

Within 1 year after November 15, 1990, the Administrator shall promulgate regulations applicable to each refiner, blender, or importer of gasoline ensuring that gasoline sold or introduced into commerce by such refiner, blender, or importer (other than reformulated gasoline subject to the requirements of paragraph (1)) does not result in average per gallon emissions (measured on a mass basis) of (i) volatile organic compounds, (ii) oxides of nitrogen, (iii) carbon monoxide, and (iv) toxic air pollutants in excess of such emissions of such pollutants attributable to gasoline sold or introduced into commerce in calendar year 1990 by that refiner, blender, or importer. Such regulations shall take effect beginning January 1, 1995.

(B) Adjustments

In evaluating compliance with the requirements of subparagraph (A), the Administrator shall make appropriate adjustments to insure that no credit is provided for improvement in motor vehicle emissions control in motor vehicles sold after the calendar year 1990.

(C) Compliance determined for each pollutant independently

In determining whether there is an increase in emissions in violation of the prohibition contained in subparagraph (A) the Administrator shall consider an increase in each air pollutant referred to in clauses (i) through (iv) as a separate violation of such prohibition, except that the Administrator shall promulgate regulations to provide that any increase in emissions of oxides of nitrogen resulting from adding oxygenates to gasoline may be offset by an equivalent or greater reduction (on a mass basis) in emissions of volatile organic compounds, carbon monoxide, or toxic air pollutants, or any combination of the foregoing.

(D) Compliance period

The Administrator shall promulgate an appropriate compliance period or appropriate compliance periods to be used for assessing compliance with the prohibition contained in subparagraph (A).

(E) Baseline for determining compliance

If the Administrator determines that no adequate and reliable data exists regarding the composition of gasoline sold or introduced into commerce by a refiner, blender, or importer in calendar year 1990, for such refiner, blender, or importer, baseline gasoline shall be substituted for such 1990 gasoline in determining compliance with subparagraph (A).

(9) Emissions from entire vehicle

In applying the requirements of this subsection, the Administrator shall take into account emissions from the entire motor vehicle, including evaporative, running, refueling, and exhaust emissions.

(10) Definitions

For purposes of this subsection—

(A) Baseline vehicles

The term ''baseline vehicles'' mean representative model year 1990 vehicles.

(B) Baseline gasoline

(i) Summertime

The term ''baseline gasoline'' means in the case of gasoline sold during the high ozone period (as defined by the Administrator) a gasoline which meets the following specifications:

BASELINE GASOLINE FUEL PROPERTIES

API Gravity	57.4
Sulfur, ppm	339
Benzene, %	1.53
RVP, psi	8.7
Octane, R+M/2	87.3
IBP, F	91
10%, F	128
50%, F	218
90%, F	330
End Point, F	415
Aromatics, %	32.0
Olefins, %	9.2
Saturates, %	58.8

(ii) Wintertime

The Administrator shall establish the specifications of ''baseline gasoline'' for gasoline sold at times other than the high ozone period (as defined by the Administrator). Such specifications shall be the specifications of 1990 industry average gasoline sold during such period.

(C) Toxic air pollutants

The term ''toxic air pollutants'' means the aggregate emissions of the following:

Benzene
1,3 Butadiene
Polycyclic organic matter (POM)
Acetaldehyde
Formaldehyde.

(D) Covered area

The 9 ozone nonattainment areas having a 1980 population in excess of 250,000 and having the highest ozone design value during the period 1987 through 1989 shall be ''covered areas'' for purposes of this subsection. Effective one year after the reclassification of any ozone nonattainment area as a Severe ozone nonattainment area under section 7511(b) of this title, such Severe area shall also be a ''covered area'' for purposes of this subsection.

(E) Reformulated gasoline

The term ''reformulated gasoline'' means any gasoline which is certified by the Administrator under this section as complying with this subsection.

(F) Conventional gasoline

The term ''conventional gasoline'' means any gasoline which does not meet specifications set by a certification under this subsection.

(*l*) Detergents

Effective beginning January 1, 1995, no person may sell or dispense to an ultimate consumer in the United States, and no refiner or marketer may directly or indirectly sell or dispense to persons who sell or dispense to ultimate consumers in the United States any gasoline which does not contain additives to prevent the accumulation of deposits in engines or fuel supply systems. Not later than 2 years after November 15, 1990, the Administrator shall promulgate a rule establishing specifications for such additives.

(m) Oxygenated fuels

(1) Plan revisions for CO nonattainment areas

(A) Each State in which there is located all or part of an area which is designated under subchapter I as a nonattainment area for carbon monoxide and which has a carbon monoxide design value of 9.5 parts per million (ppm) or above based on data for the 2-year period of 1988 and 1989 and calculated according to the most recent interpretation methodology issued by the Administrator prior to November 15, 1990, shall submit to the Administrator a State implementation plan revision under section 7410 of this title and part D of subchapter I for such area which shall contain the provisions specified under this subsection regarding oxygenated gasoline.

(B) A plan revision which contains such provisions shall also be submitted by each State in which there is located any area which, for any 2-year period after 1989 has a carbon monoxide design value of 9.5 ppm or above. The revision shall be submitted within 18 months after such 2-year period.

(2) Oxygenated gasoline in CO nonattainment areas

Each plan revision under this subsection shall contain provisions to require that any gasoline sold, or dispensed, to the ultimate consumer in the carbon monoxide nonattainment area or sold or dispensed directly or indirectly by fuel refiners or marketers to persons who sell or dispense to ultimate consumers, in the larger of—

(A) the Consolidated Metropolitan Statistical Area (CMSA) in which the area is located, or

(B) if the area is not located in a CMSA, the Metropolitan Statistical Area in which the area is located,

be blended, during the portion of the year in which the area is prone to high ambient concentrations of carbon monoxide to contain not less than 2.7 percent oxygen by weight (subject to a testing tolerance established by the Administrator). The portion of the year in which the area is prone to high ambient concentrations of carbon monoxide shall be as determined by the Administrator, but shall not be less than 4 months. At the request of a State with respect to any area designated as nonattainment for carbon monoxide, the Administrator may reduce the period specified in the preceding sentence if the State can demonstrate that because of meteorological conditions, a reduced period will assure that there will be no exceedances of the carbon monoxide standard outside of such reduced period. For areas with a carbon monoxide design value of 9.5 ppm or more of[7] November 15, 1990, the revision shall provide that such requirement shall take effect no later than November 1, 1992 (or at such other date during 1992 as the Administrator establishes under the preceding provisions of this paragraph). For other areas, the revision shall provide that such requirement shall take effect no later than November 1 of the third year after the last year of the applicable 2-year period referred to in paragraph (1) (or at such other date during such third year as the Administrator establishes under the preceding provisions of this paragraph) and shall include a program for implementation and enforcement of the requirement consistent with guidance to be issued by the Administrator.

(3) Waivers

(A) The Administrator shall waive, in whole or in part, the requirements of paragraph (2) upon a demonstration by the State to the satisfaction of the Administrator that the use of oxygenated gasoline would prevent or interfere with the attainment by the area of a national primary ambient air quality standard (or a State or local ambient air quality standard) for any air pollutant other than carbon monoxide.

(B) The Administrator shall, upon demonstration by the State satisfactory to the Administrator, waive the requirement of paragraph (2) where the Administrator determines that mobile sources of carbon monoxide do not contribute significantly to carbon monoxide levels in an area.

(C)(i) Any person may petition the Administrator to make a finding that there is, or is likely to be, for any area, an inadequate domestic supply of, or distribution capacity for, oxygenated gasoline meeting the requirements of paragraph (2) or fuel additives (oxygenates) necessary to meet such requirements. The Administrator shall act on such petition within 6 months after receipt of the petition.

(ii) If the Administrator determines, in response to a petition under clause (i), that there is an inadequate supply or capacity described in clause (i), the Administrator shall delay the effective date of paragraph (2) for 1 year. Upon petition, the Administrator may extend such effective date for one additional year. No partial delay or lesser waiver may be granted under this clause.

(iii) In granting waivers under this subparagraph the Administrator shall consider distribution capacity separately from the adequacy of domestic supply and shall grant such waivers in such manner as will assure that, if supplies of oxygenated gasoline are limited,

[7] So in original. Probably should be ''as of''.

areas having the highest design value for carbon monoxide will have a priority in obtaining oxygenated gasoline which meets the requirements of paragraph (2).

(iv) As used in this subparagraph, the term distribution capacity includes capacity for transportation, storage, and blending.

(4) Fuel dispensing systems

Any person selling oxygenated gasoline at retail pursuant to this subsection shall be required under regulations promulgated by the Administrator to label the fuel dispensing system with a notice that the gasoline is oxygenated and will reduce the carbon monoxide emissions from the motor vehicle.

(5) Guidelines for credit

The Administrator shall promulgate guidelines, within 9 months after November 15, 1990, allowing the use of marketable oxygen credits from gasolines during that portion of the year specified in paragraph (2) with higher oxygen content than required to offset the sale or use of gasoline with a lower oxygen content than required. No credits may be transferred between nonattainment areas.

(6) Attainment areas

Nothing in this subsection shall be interpreted as requiring an oxygenated gasoline program in an area which is in attainment for carbon monoxide, except that in a carbon monoxide nonattainment area which is redesignated as attainment for carbon monoxide, the requirements of this subsection shall remain in effect to the extent such program is necessary to maintain such standard thereafter in the area.

(7) Failure to attain CO standard

If the Administrator determines under section 7512(b)(2) of this title that the national primary ambient air quality standard for carbon monoxide has not been attained in a Serious Area by the applicable attainment date, the State shall submit a plan revision for the area within 9 months after the date of such determination. The plan revision shall provide that the minimum oxygen content of gasoline referred to in paragraph (2) shall be 3.1 percent by weight unless such requirement is waived in accordance with the provisions of this subsection.

(n) Prohibition on leaded gasoline for highway use

After December 31, 1995, it shall be unlawful for any person to sell, offer for sale, supply, offer for supply, dispense, transport, or introduce into commerce, for use as fuel in any motor vehicle (as defined in section 7554(2)[8] of this title) any gasoline which contains lead or lead additives.

(*o*) Renewable fuel program

(1) Definitions

In this section:

(A) Additional renewable fuel

The term ''additional renewable fuel'' means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel.

(B) Advanced biofuel

(i) In general

The term ''advanced biofuel'' means renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

(ii) Inclusions

The types of fuels eligible for consideration as ''advanced biofuel'' may include any of the following:

(I) Ethanol derived from cellulose, hemicellulose, or lignin.

(II) Ethanol derived from sugar or starch (other than corn starch).

(III) Ethanol derived from waste material, including crop residue, other vegetative waste material, animal waste, and food waste and yard waste.

(IV) Biomass-based diesel.

(V) Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass.

(VI) Butanol or other alcohols produced through the conversion of organic matter from renewable biomass.

(VII) Other fuel derived from cellulosic biomass.

(C) Baseline lifecycle greenhouse gas emissions

The term ''baseline lifecycle greenhouse gas emissions'' means the average lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

(D) Biomass-based diesel

The term ''biomass-based diesel'' means renewable fuel that is biodiesel as defined in section 13220(f) of this title and that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than the baseline lifecycle greenhouse gas emissions. Notwithstanding the preceding sentence, renewable fuel derived from co-processing biomass with a petroleum feedstock shall be advanced biofuel if it meets the requirements of subparagraph (B), but is not biomass-based diesel.

(E) Cellulosic biofuel

The term ''cellulosic biofuel'' means renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 per-

[8] So in original. Probably should be section ''7550(2)''.

cent less than the baseline lifecycle greenhouse gas emissions.

(F) Conventional biofuel

The term ''conventional biofuel'' means renewable fuel that is ethanol derived from corn starch.

(G) Greenhouse gas

The term ''greenhouse gas'' means carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons,[9] sulfur hexafluoride. The Administrator may include any other anthropogenically-emitted gas that is determined by the Administrator, after notice and comment, to contribute to global warming.

(H) Lifecycle greenhouse gas emissions

The term ''lifecycle greenhouse gas emissions'' means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

(I) Renewable biomass

The term ''renewable biomass'' means each of the following:

(i) Planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to December 19, 2007, that is either actively managed or fallow, and nonforested.

(ii) Planted trees and tree residue from actively managed tree plantations on nonfederal[10] land cleared at any time prior to December 19, 2007, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States.

(iii) Animal waste material and animal byproducts.

(iv) Slash and pre-commercial thinnings that are from non-federal[10] forestlands, including forestlands belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States, but not forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest.

(v) Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.

(vi) Algae.

(vii) Separated yard waste or food waste, including recycled cooking and trap grease.

(J) Renewable fuel

The term ''renewable fuel'' means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.

(K) Small refinery

The term ''small refinery'' means a refinery for which the average aggregate daily crude oil throughput for a calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

(L) Transportation fuel

The term ''transportation fuel'' means fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except for ocean-going vessels).

(2) Renewable fuel program

(A) Regulations

(i) In general

Not later than 1 year after August 8, 2005, the Administrator shall promulgate regulations to ensure that gasoline sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains the applicable volume of renewable fuel determined in accordance with subparagraph (B). Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

(ii) Noncontiguous State opt-in

(I) In general

On the petition of a noncontiguous State or territory, the Administrator may allow the renewable fuel program established under this subsection to apply in the noncontiguous State or territory at the same time or any time after the Administrator promulgates regulations under this subparagraph.

(II) Other actions

In carrying out this clause, the Administrator may—

(aa) issue or revise regulations under this paragraph;

[9] So in original. The word ''and'' probably should appear.

[10] So in original. Probably should be ''non-Federal''.

(bb) establish applicable percentages under paragraph (3);

(cc) provide for the generation of credits under paragraph (5); and

(dd) take such other actions as are necessary to allow for the application of the renewable fuels program in a noncontiguous State or territory.

(iii) Provisions of regulations

Regardless of the date of promulgation, the regulations promulgated under clause (i)—

(I) shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to ensure that the requirements of this paragraph are met; but

(II) shall not—

(aa) restrict geographic areas in which renewable fuel may be used; or

(bb) impose any per-gallon obligation for the use of renewable fuel.

(iv) Requirement in case of failure to promulgate regulations

If the Administrator does not promulgate regulations under clause (i), the percentage of renewable fuel in gasoline sold or dispensed to consumers in the United States, on a volume basis, shall be 2.78 percent for calendar year 2006.

(B) Applicable volumes

(i) Calendar years after 2005

(I) Renewable fuel

For the purpose of subparagraph (A), the applicable volume of renewable fuel for the calendar years 2006 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of renewable fuel (in billions of gallons):
2006	4.0
2007	4.7
2008	9.0
2009	11.1
2010	12.95
2011	13.95
2012	15.2
2013	16.55
2014	18.15
2015	20.5
2016	22.25
2017	24.0
2018	26.0
2019	28.0
2020	30.0
2021	33.0
2022	36.0

(II) Advanced biofuel

For the purpose of subparagraph (A), of the volume of renewable fuel required under subclause (I), the applicable volume of advanced biofuel for the calendar years 2009 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of advanced biofuel (in billions of gallons):
2009	0.6
2010	0.95
2011	1.35
2012	2.0
2013	2.75
2014	3.75
2015	5.5
2016	7.25
2017	9.0
2018	11.0
2019	13.0
2020	15.0
2021	18.0
2022	21.0

(III) Cellulosic biofuel

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of cellulosic biofuel for the calendar years 2010 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of cellulosic biofuel (in billions of gallons):
2010	0.1
2011	0.25
2012	0.5
2013	1.0
2014	1.75
2015	3.0
2016	4.25
2017	5.5
2018	7.0
2019	8.5
2020	10.5
2021	13.5
2022	16.0

(IV) Biomass-based diesel

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of biomass-based diesel for the calendar years 2009 through 2012 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of biomass-based diesel (in billions of gallons):
2009	0.5
2010	0.65
2011	0.80
2012	1.0

(ii) Other calendar years

For the purposes of subparagraph (A), the applicable volumes of each fuel specified in the tables in clause (i) for calendar years after the calendar years specified in the tables shall be determined by the Ad-

ministrator, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on a review of the implementation of the program during calendar years specified in the tables, and an analysis of—

(I) the impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply;

(II) the impact of renewable fuels on the energy security of the United States;

(III) the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel);

(IV) the impact of renewable fuels on the infrastructure of the United States, including deliverability of materials, goods, and products other than renewable fuel, and the sufficiency of infrastructure to deliver and use renewable fuel;

(V) the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and

(VI) the impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.

The Administrator shall promulgate rules establishing the applicable volumes under this clause no later than 14 months before the first year for which such applicable volume will apply.

(iii) Applicable volume of advanced biofuel

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of advanced biofuel shall be at least the same percentage of the applicable volume of renewable fuel as in calendar year 2022.

(iv) Applicable volume of cellulosic biofuel

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).

(v) Minimum applicable volume of biomass-based diesel

For the purpose of making the determinations in clause (ii), the applicable volume of biomass-based diesel shall not be less than the applicable volume listed in clause (i)(IV) for calendar year 2012.

(3) Applicable percentages

(A) Provision of estimate of volumes of gasoline sales

Not later than October 31 of each of calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.

(B) Determination of applicable percentages

(i) In general

Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.

(ii) Required elements

The renewable fuel obligation determined for a calendar year under clause (i) shall—

(I) be applicable to refineries, blenders, and importers, as appropriate;

(II) be expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States; and

(III) subject to subparagraph (C)(i), consist of a single applicable percentage that applies to all categories of persons specified in subclause (I).

(C) Adjustments

In determining the applicable percentage for a calendar year, the Administrator shall make adjustments—

(i) to prevent the imposition of redundant obligations on any person specified in subparagraph (B)(ii)(I); and

(ii) to account for the use of renewable fuel during the previous calendar year by small refineries that are exempt under paragraph (9).

(4) Modification of greenhouse gas reduction percentages

(A) In general

The Administrator may, in the regulations under the last sentence of paragraph (2)(A)(i), adjust the 20 percent, 50 percent, and 60 percent reductions in lifecycle greenhouse gas emissions specified in paragraphs (2)(A)(i) (relating to renewable fuel), (1)(D) (relating to biomass-based diesel), (1)(B)(i) (relating to advanced biofuel), and (1)(E) (relating to cellulosic biofuel) to a lower percentage. For the 50 and 60 percent reductions, the Administrator may make such an adjustment only if he determines that generally such reduction is not commercially feasible for fuels made using a variety of feedstocks, technologies, and processes to meet the applicable reduction.

(B) Amount of adjustment

In promulgating regulations under this paragraph, the specified 50 percent reduction

in greenhouse gas emissions from advanced biofuel and in biomass-based diesel may not be reduced below 40 percent. The specified 20 percent reduction in greenhouse gas emissions from renewable fuel may not be reduced below 10 percent, and the specified 60 percent reduction in greenhouse gas emissions from cellulosic biofuel may not be reduced below 50 percent.

(C) Adjusted reduction levels

An adjustment under this paragraph to a percent less than the specified 20 percent greenhouse gas reduction for renewable fuel shall be the minimum possible adjustment, and the adjusted greenhouse gas reduction shall be established by the Administrator at the maximum achievable level, taking cost in consideration, for natural gas fired corn-based ethanol plants, allowing for the use of a variety of technologies and processes. An adjustment in the 50 or 60 percent greenhouse gas levels shall be the minimum possible adjustment for the fuel or fuels concerned, and the adjusted greenhouse gas reduction shall be established at the maximum achievable level, taking cost in consideration, allowing for the use of a variety of feedstocks, technologies, and processes.

(D) 5-year review

Whenever the Administrator makes any adjustment under this paragraph, not later than 5 years thereafter he shall review and revise (based upon the same criteria and standards as required for the initial adjustment) the regulations establishing the adjusted level.

(E) Subsequent adjustments

After the Administrator has promulgated a final rule under the last sentence of paragraph (2)(A)(i) with respect to the method of determining lifecycle greenhouse gas emissions, except as provided in subparagraph (D), the Administrator may not adjust the percent greenhouse gas reduction levels unless he determines that there has been a significant change in the analytical methodology used for determining the lifecycle greenhouse gas emissions. If he makes such determination, he may adjust the 20, 50, or 60 percent reduction levels through rulemaking using the criteria and standards set forth in this paragraph.

(F) Limit on upward adjustments

If, under subparagraph (D) or (E), the Administrator revises a percent level adjusted as provided in subparagraphs (A), (B), and (C) to a higher percent, such higher percent may not exceed the applicable percent specified in paragraph (2)(A)(i), (1)(D), (1)(B)(i), or (1)(E).

(G) Applicability of adjustments

If the Administrator adjusts, or revises, a percent level referred to in this paragraph or makes a change in the analytical methodology used for determining the lifecycle greenhouse gas emissions, such adjustment, revision, or change (or any combination thereof) shall only apply to renewable fuel from new facilities that commence construction after the effective date of such adjustment, revision, or change.

(5) Credit program

(A) In general

The regulations promulgated under paragraph (2)(A) shall provide—

(i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2);

(ii) for the generation of an appropriate amount of credits for biodiesel; and

(iii) for the generation of credits by small refineries in accordance with paragraph (9)(C).

(B) Use of credits

A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

(C) Duration of credits

A credit generated under this paragraph shall be valid to show compliance for the 12 months as of the date of generation.

(D) Inability to generate or purchase sufficient credits

The regulations promulgated under paragraph (2)(A) shall include provisions allowing any person that is unable to generate or purchase sufficient credits to meet the requirements of paragraph (2) to carry forward a renewable fuel deficit on condition that the person, in the calendar year following the year in which the renewable fuel deficit is created—

(i) achieves compliance with the renewable fuel requirement under paragraph (2); and

(ii) generates or purchases additional renewable fuel credits to offset the renewable fuel deficit of the previous year.

(E) Credits for additional renewable fuel

The Administrator may issue regulations providing: (i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports additional renewable fuels specified by the Administrator; and (ii) for the use of such credits by the generator, or the transfer of all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

(6) Seasonal variations in renewable fuel use

(A) Study

For each of calendar years 2006 through 2012, the Administrator of the Energy Information Administration shall conduct a study of renewable fuel blending to determine whether there are excessive seasonal variations in the use of renewable fuel.

(B) Regulation of excessive seasonal variations

If, for any calendar year, the Administrator of the Energy Information Adminis-

tration, based on the study under subparagraph (A), makes the determinations specified in subparagraph (C), the Administrator of the Environmental Protection Agency shall promulgate regulations to ensure that 25 percent or more of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) is used during each of the 2 periods specified in subparagraph (D) of each subsequent calendar year.

(C) Determinations

The determinations referred to in subparagraph (B) are that—

(i) less than 25 percent of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) has been used during 1 of the 2 periods specified in subparagraph (D) of the calendar year;

(ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years; and

(iii) promulgating regulations or other requirements to impose a 25 percent or more seasonal use of renewable fuels will not prevent or interfere with the attainment of national ambient air quality standards or significantly increase the price of motor fuels to the consumer.

(D) Periods

The 2 periods referred to in this paragraph are—

(i) April through September; and

(ii) January through March and October through December.

(E) Exclusion

Renewable fuel blended or consumed in calendar year 2006 in a State that has received a waiver under section 7543(b) of this title shall not be included in the study under subparagraph (A).

(F) State exemption from seasonality requirements

Notwithstanding any other provision of law, the seasonality requirement relating to renewable fuel use established by this paragraph shall not apply to any State that has received a waiver under section 7543(b) of this title or any State dependent on refineries in such State for gasoline supplies.

(7) Waivers

(A) In general

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirements of paragraph (2) in whole or in part on petition by one or more States, by any person subject to the requirements of this subsection, or by the Administrator on his own motion by reducing the national quantity of renewable fuel required under paragraph (2)—

(i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or

(ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply.

(B) Petitions for waivers

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove a petition for a waiver of the requirements of paragraph (2) within 90 days after the date on which the petition is received by the Administrator.

(C) Termination of waivers

A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

(D) Cellulosic biofuel

(i) For any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum applicable volume established under paragraph (2)(B), as determined by the Administrator based on the estimate provided under paragraph (3)(A), not later than November 30 of the preceding calendar year, the Administrator shall reduce the applicable volume of cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year. For any calendar year in which the Administrator makes such a reduction, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

(ii) Whenever the Administrator reduces the minimum cellulosic biofuel volume under this subparagraph, the Administrator shall make available for sale cellulosic biofuel credits at the higher of $0.25 per gallon or the amount by which $3.00 per gallon exceeds the average wholesale price of a gallon of gasoline in the United States. Such amounts shall be adjusted for inflation by the Administrator for years after 2008.

(iii) Eighteen months after December 19, 2007, the Administrator shall promulgate regulations to govern the issuance of credits under this subparagraph. The regulations shall set forth the method for determining the exact price of credits in the event of a waiver. The price of such credits shall not be changed more frequently than once each quarter. These regulations shall include such provisions, including limiting the credits' uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection. The regulations shall limit the number of cellulosic biofuel credits for any calendar year to the minimum appli-

cable volume (as reduced under this subparagraph) of cellulosic biofuel for that year.

(E) Biomass-based diesel

(i) Market evaluation

The Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall periodically evaluate the impact of the biomass-based diesel requirements established under this paragraph on the price of diesel fuel.

(ii) Waiver

If the Administrator determines that there is a significant renewable feedstock disruption or other market circumstances that would make the price of biomass-based diesel fuel increase significantly, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall issue an order to reduce, for up to a 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed 15 percent of the applicable annual requirement for biomass-based diesel. For any calendar year in which the Administrator makes a reduction under this subparagraph, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

(iii) Extensions

If the Administrator determines that the feedstock disruption or circumstances described in clause (ii) is continuing beyond the 60-day period described in clause (ii) or this clause, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, may issue an order to reduce, for up to an additional 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed an additional 15 percent of the applicable annual requirement for biomass-based diesel.

(F) Modification of applicable volumes

For any of the tables in paragraph (2)(B), if the Administrator waives—

(i) at least 20 percent of the applicable volume requirement set forth in any such table for 2 consecutive years; or

(ii) at least 50 percent of such volume requirement for a single year,

the Administrator shall promulgate a rule (within 1 year after issuing such waiver) that modifies the applicable volumes set forth in the table concerned for all years following the final year to which the waiver applies, except that no such modification in applicable volumes shall be made for any year before 2016. In promulgating such a rule, the Administrator shall comply with the processes, criteria, and standards set forth in paragraph (2)(B)(ii).

(8) Study and waiver for initial year of program

(A) In general

Not later than 180 days after August 8, 2005, the Secretary of Energy shall conduct for the Administrator a study assessing whether the renewable fuel requirement under paragraph (2) will likely result in significant adverse impacts on consumers in 2006, on a national, regional, or State basis.

(B) Required evaluations

The study shall evaluate renewable fuel—

(i) supplies and prices;

(ii) blendstock supplies; and

(iii) supply and distribution system capabilities.

(C) Recommendations by the Secretary

Based on the results of the study, the Secretary of Energy shall make specific recommendations to the Administrator concerning waiver of the requirements of paragraph (2), in whole or in part, to prevent any adverse impacts described in subparagraph (A).

(D) Waiver

(i) In general

Not later than 270 days after August 8, 2005, the Administrator shall, if and to the extent recommended by the Secretary of Energy under subparagraph (C), waive, in whole or in part, the renewable fuel requirement under paragraph (2) by reducing the national quantity of renewable fuel required under paragraph (2) in calendar year 2006.

(ii) No effect on waiver authority

Clause (i) does not limit the authority of the Administrator to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7).

(9) Small refineries

(A) Temporary exemption

(i) In general

The requirements of paragraph (2) shall not apply to small refineries until calendar year 2011.

(ii) Extension of exemption

(I) Study by Secretary of Energy

Not later than December 31, 2008, the Secretary of Energy shall conduct for the Administrator a study to determine whether compliance with the requirements of paragraph (2) would impose a disproportionate economic hardship on small refineries.

(II) Extension of exemption

In the case of a small refinery that the Secretary of Energy determines under subclause (I) would be subject to a disproportionate economic hardship if required to comply with paragraph (2), the Administrator shall extend the exemption under clause (i) for the small refinery for a period of not less than 2 additional years.

(B) Petitions based on disproportionate economic hardship

(i) Extension of exemption

A small refinery may at any time petition the Administrator for an extension of the exemption under subparagraph (A) for the reason of disproportionate economic hardship.

(ii) Evaluation of petitions

In evaluating a petition under clause (i), the Administrator, in consultation with the Secretary of Energy, shall consider the findings of the study under subparagraph (A)(ii) and other economic factors.

(iii) Deadline for action on petitions

The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the date of receipt of the petition.

(C) Credit program

If a small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A), the regulations promulgated under paragraph (2)(A) shall provide for the generation of credits by the small refinery under paragraph (5) beginning in the calendar year following the date of notification.

(D) Opt-in for small refineries

A small refinery shall be subject to the requirements of paragraph (2) if the small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A).

(10) Ethanol market concentration analysis

(A) Analysis

(i) In general

Not later than 180 days after August 8, 2005, and annually thereafter, the Federal Trade Commission shall perform a market concentration analysis of the ethanol production industry using the Herfindahl-Hirschman Index to determine whether there is sufficient competition among industry participants to avoid price-setting and other anticompetitive behavior.

(ii) Scoring

For the purpose of scoring under clause (i) using the Herfindahl-Hirschman Index, all marketing arrangements among industry participants shall be considered.

(B) Report

Not later than December 1, 2005, and annually thereafter, the Federal Trade Commission shall submit to Congress and the Administrator a report on the results of the market concentration analysis performed under subparagraph (A)(i).

(11) Periodic reviews

To allow for the appropriate adjustment of the requirements described in subparagraph (B) of paragraph (2), the Administrator shall conduct periodic reviews of—

(A) existing technologies;

(B) the feasibility of achieving compliance with the requirements; and

(C) the impacts of the requirements described in subsection (a)(2)[11] on each individual and entity described in paragraph (2).

(12) Effect on other provisions

Nothing in this subsection, or regulations issued pursuant to this subsection, shall affect or be construed to affect the regulatory status of carbon dioxide or any other greenhouse gas, or to expand or limit regulatory authority regarding carbon dioxide or any other greenhouse gas, for purposes of other provisions (including section 7475) of this chapter. The previous sentence shall not affect implementation and enforcement of this subsection.

(q)[12] Analyses of motor vehicle fuel changes and emissions model

(1) Anti-backsliding analysis

(A) Draft analysis

Not later than 4 years after August 8, 2005, the Administrator shall publish for public comment a draft analysis of the changes in emissions of air pollutants and air quality due to the use of motor vehicle fuel and fuel additives resulting from implementation of the amendments made by the Energy Policy Act of 2005.

(B) Final analysis

After providing a reasonable opportunity for comment but not later than 5 years after August 8, 2005, the Administrator shall publish the analysis in final form.

(2) Emissions model

For the purposes of this section, not later than 4 years after August 8, 2005, the Administrator shall develop and finalize an emissions model that reflects, to the maximum extent practicable, the effects of gasoline characteristics or components on emissions from vehicles in the motor vehicle fleet during calendar year 2007.

(3) Permeation effects study

(A) In general

Not later than 1 year after August 8, 2005, the Administrator shall conduct a study, and report to Congress the results of the study, on the effects of ethanol content in gasoline on permeation, the process by which fuel molecules migrate through the elastomeric materials (rubber and plastic parts) that make up the fuel and fuel vapor systems of a motor vehicle.

(B) Evaporative emissions

The study shall include estimates of the increase in total evaporative emissions likely to result from the use of gasoline with ethanol content in a motor vehicle, and the fleet of motor vehicles, due to permeation.

(r) Fuel and fuel additive importers and importation

For the purposes of this section, the term ''manufacturer'' includes an importer and the term ''manufacture'' includes importation.

---

[11] So in original. Subsection (a) does not contain a par. (2).

[12] So in original. No subsec. (p) has been enacted.

(s) Conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels

(1) In general

The Secretary of Energy may provide grants to merchant producers of cellulosic biomass ethanol, waste-derived ethanol, and approved renewable fuels in the United States to assist the producers in building eligible production facilities described in paragraph (2) for the production of ethanol or approved renewable fuels.

(2) Eligible production facilities

A production facility shall be eligible to receive a grant under this subsection if the production facility—

(A) is located in the United States; and

(B) uses cellulosic or renewable biomass or waste-derived feedstocks derived from agricultural residues, wood residues, municipal solid waste, or agricultural byproducts.

(3) Authorization of appropriations

There are authorized to be appropriated the following amounts to carry out this subsection:

(A) $100,000,000 for fiscal year 2006.

(B) $250,000,000 for fiscal year 2007.

(C) $400,000,000 for fiscal year 2008.

(4) Definitions

For the purposes of this subsection:

(A) The term ''approved renewable fuels'' are fuels and components of fuels that have been approved by the Department of Energy, as defined in section 13211 of this title, which have been made from renewable biomass.

(B) The term ''renewable biomass'' is, as defined in Presidential Executive Order 13134, published in the Federal Register on August 16, 1999, any organic matter that is available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, animal wastes, wood and wood residues, paper and paper residues, and other vegetative waste materials. Old-growth timber means timber of a forest from the late successional stage of forest development.

(t) Blending of compliant reformulated gasolines

(1) In general

Notwithstanding subsections (h) and (k) and subject to the limitations in paragraph (2) of this subsection, it shall not be a violation of this part[13] for a gasoline retailer, during any month of the year, to blend at a retail location batches of ethanol-blended and non-ethanol-blended reformulated gasoline, provided that—

(A) each batch of gasoline to be blended has been individually certified as in compliance with subsections (h) and (k) prior to being blended;

(B) the retailer notifies the Administrator prior to such blending, and identifies the exact location of the retail station and the specific tank in which such blending will take place;

(C) the retailer retains and, as requested by the Administrator or the Administrator's designee, makes available for inspection such certifications accounting for all gasoline at the retail outlet; and

(D) the retailer does not, between June 1 and September 15 of each year, blend a batch of VOC-controlled, or ''summer'', gasoline with a batch of non-VOC-controlled, or ''winter'', gasoline (as these terms are defined under subsections (h) and (k)).

(2) Limitations

(A) Frequency limitation

A retailer shall only be permitted to blend batches of compliant reformulated gasoline under this subsection a maximum of two blending periods between May 1 and September 15 of each calendar year.

(B) Duration of blending period

Each blending period authorized under subparagraph (A) shall extend for a period of no more than 10 consecutive calendar days.

(3) Surveys

A sample of gasoline taken from a retail location that has blended gasoline within the past 30 days and is in compliance with subparagraphs (A), (B), (C), and (D) of paragraph (1) shall not be used in a VOC survey mandated by 40 CFR Part 80.

(4) State implementation plans

A State shall be held harmless and shall not be required to revise its State implementation plan under section 7410 of this title to account for the emissions from blended gasoline authorized under paragraph (1).

(5) Preservation of State law

Nothing in this subsection shall—

(A) preempt existing State laws or regulations regulating the blending of compliant gasolines; or

(B) prohibit a State from adopting such restrictions in the future.

(6) Regulations

The Administrator shall promulgate, after notice and comment, regulations implementing this subsection within 1 year after August 8, 2005.

(7) Effective date

This subsection shall become effective 15 months after August 8, 2005, and shall apply to blended batches of reformulated gasoline on or after that date, regardless of whether the implementing regulations required by paragraph (6) have been promulgated by the Administrator by that date.

(8) Liability

No person other than the person responsible for blending under this subsection shall be subject to an enforcement action or penalties under subsection (d) solely arising from the blending of compliant reformulated gasolines by the retailers.

(9) Formulation of gasoline

This subsection does not grant authority to the Administrator or any State (or any sub-

[13] See References in Text note below.

division thereof) to require reformulation of gasoline at the refinery to adjust for potential or actual emissions increases due to the blending authorized by this subsection.

(u) Standard specifications for biodiesel

(1) Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 20 percent biodiesel (commonly known as ''B20'') within 1 year after December 19, 2007, the Administrator shall initiate a rulemaking to establish a uniform per gallon fuel standard for such fuel and designate an identification number so that vehicle manufacturers are able to design engines to use fuel meeting such standard.

(2) Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 5 percent biodiesel (commonly known as ''B5'') within 1 year after December 19, 2007, the Administrator shall initiate a rulemaking to establish a uniform per gallon fuel standard for such fuel and designate an identification so that vehicle manufacturers are able to design engines to use fuel meeting such standard.

(3) Whenever the Administrator is required to initiate a rulemaking under paragraph (1) or (2), the Administrator shall promulgate a final rule within 18 months after December 19, 2007.

(4) Not later than 180 days after December 19, 2007, the Administrator shall establish an annual inspection and enforcement program to ensure that diesel fuel containing biodiesel sold or distributed in interstate commerce meets the standards established under regulations under this section, including testing and certification for compliance with applicable standards of the American Society for Testing and Materials. There are authorized to be appropriated to carry out the inspection and enforcement program under this paragraph $3,000,000 for each of fiscal years 2008 through 2010.

(5) For purposes of this subsection, the term ''biodiesel'' has the meaning provided by section 13220(f) of this title.

(v) Prevention of air quality deterioration

(1) Study

(A) In general

Not later than 18 months after December 19, 2007, the Administrator shall complete a study to determine whether the renewable fuel volumes required by this section will adversely impact air quality as a result of changes in vehicle and engine emissions of air pollutants regulated under this chapter.

(B) Considerations

The study shall include consideration of—

(i) different blend levels, types of renewable fuels, and available vehicle technologies; and

(ii) appropriate national, regional, and local air quality control measures.

(2) Regulations

Not later than 3 years after December 19, 2007, the Administrator shall—

(A) promulgate fuel regulations to implement appropriate measures to mitigate, to the greatest extent achievable, considering the results of the study under paragraph (1), any adverse impacts on air quality, as the result of the renewable volumes required by this section; or

(B) make a determination that no such measures are necessary.

(July 14, 1955, ch. 360, title II, § 211, formerly § 210, as added Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 502; renumbered and amended Pub. L. 91–604, §§ 8(a), 9(a), Dec. 31, 1970, 84 Stat. 1694, 1698; Pub. L. 92–157, title III, § 302(d), (e), Nov. 18, 1971, 85 Stat. 464; Pub. L. 95–95, title II, §§ 222, 223, title IV, § 401(e), Aug. 7, 1977, 91 Stat. 762, 764, 791; Pub. L. 95–190, § 14(a)(73), (74), Nov. 16, 1977, 91 Stat. 1403, 1404; Pub. L. 101–549, title II, §§ 212–221, 228(d), Nov. 15, 1990, 104 Stat. 2488–2500, 2510; Pub. L. 109–58, title XV, §§ 1501(a)–(c), 1504(a)(1), (b), 1505–1507, 1512, 1513, 1541(a), (b), Aug. 8, 2005, 119 Stat. 1067–1074, 1076, 1077, 1080, 1081, 1088, 1089, 1106, 1107; Pub. L. 110–140, title II, §§ 201, 202, 203(f), 208, 209, 210(b), 247, 251, Dec. 19, 2007, 121 Stat. 1519, 1521, 1529, 1531, 1532, 1547, 1548.)

REFERENCES IN TEXT

August 8, 2005, referred to in subsec. (c)(4)(C)(v)(II), was in the original ''enactment'', which was translated as meaning the date of enactment of Pub. L. 109–58, which enacted subsec. (c)(4)(C)(v), to reflect the probable intent of Congress.

Section 7521(*l*) of this title, referred to in subsec. (k)(1)(B)(vi), was in the original ''section 202(1) of the Clean Air Act'', which was translated as meaning section 202(*l*) of the Clean Air Act, to reflect the probable intent of Congress.

The Energy Policy Act of 2005, referred to in subsec. (q)(1)(A), is Pub. L. 109–58, Aug. 8, 2005, 119 Stat. 594. For complete classification of this Act to the Code, see Short Title note set out under section 15801 of this title and Tables.

Executive Order 13134, referred to in subsec. (s)(4)(B), which was set out as a note under section 8601 of Title 7, Agriculture, was revoked by Ex. Ord. No. 13423, § 11(a)(iii), Jan. 24, 2007, 72 F.R. 3923.

This part, referred to in subsec. (t)(1), was in the original ''this subtitle'' which was translated as ''this part'', meaning part A of title II of act July 14, 1955, as the probable intent of Congress, because title II of act July 14, 1955, does not contain subtitles.

CODIFICATION

Section was formerly classified to section 1857f–6c of this title.

PRIOR PROVISIONS

A prior section 211 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 503, provided for a national emissions standards study and was classified to section 1857f–6d of this title, prior to repeal by section 8(a) of Pub. L. 91–604.

AMENDMENTS

2007—Subsec. (c)(1). Pub. L. 110–140, § 208, substituted ''nonroad vehicle if, in the judgment of the Administrator, any fuel or fuel additive or'' for ''nonroad vehicle (A) if in the judgment of the Administrator'' and ''air pollution or water pollution (including any degradation in the quality of groundwater) that'' for ''air pollution which''.

Subsec. (f)(4). Pub. L. 110–140, § 251, amended par. (4) generally. Prior to amendment, par. (4) read as follows: ''The Administrator, upon application of any manufacturer of any fuel or fuel additive, may waive the prohibitions established under paragraph (1) or (3) of this subsection or the limitation specified in paragraph (2) of this subsection, if he determines that the applicant has established that such fuel or fuel additive or a spec-

ified concentration thereof, and the emission products of such fuel or additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the emission standards with respect to which it has been certified pursuant to section 7525 of this title. If the Administrator has not acted to grant or deny an application under this paragraph within one hundred and eighty days of receipt of such application, the waiver authorized by this paragraph shall be treated as granted.''

Subsec. (*o*)(1). Pub. L. 110–140, §201, amended par. (1) generally. Prior to amendment, par. (1) defined ''cellulosic biomass ethanol'', ''waste derived ethanol'', ''renewable fuel'', and ''small refinery''.

Subsec. (*o*)(2)(A)(i). Pub. L. 110–140, §202(a)(1), inserted at end ''Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.''

Subsec. (*o*)(2)(B). Pub. L. 110–140, §202(a)(2), amended subpar. (B) generally. Prior to amendment, subpar. (B) set forth table of applicable volumes for renewable fuel and related to determination of applicable volumes after the years addressed by the table, including the minimum quantity of renewable fuel to be derived from cellulosic biomass and the method of calculating the minimum applicable volume.

Subsec. (*o*)(3)(A). Pub. L. 110–140, §202(b)(1), (2), substituted ''2021'' for ''2011'' and ''transportation fuel, biomass-based diesel, and cellulosic biofuel'' for ''gasoline''.

Subsec. (*o*)(3)(B)(i). Pub. L. 110–140, §202(b)(3), substituted ''2021'' for ''2012''.

Subsec. (*o*)(3)(B)(ii)(II). Pub. L. 110–140, §202(b)(4), substituted ''transportation fuel'' for ''gasoline''.

Subsec. (*o*)(4). Pub. L. 110–140, §202(c), amended par. (4) generally. Prior to amendment, text read as follows: ''For the purpose of paragraph (2), 1 gallon of cellulosic biomass ethanol or waste derived ethanol shall be considered to be the equivalent of 2.5 gallons of renewable fuel.''

Subsec. (*o*)(5)(E). Pub. L. 110–140, §202(d), added subpar. (E).

Subsec. (*o*)(7)(A). Pub. L. 110–140, §202(e)(1), inserted '', by any person subject to the requirements of this subsection, or by the Administrator on his own motion'' after ''one or more States'' in introductory provisions.

Subsec. (*o*)(7)(B). Pub. L. 110–140, §202(e)(1), struck out ''State'' before ''petition for a waiver''.

Subsec. (*o*)(7)(D) to (F). Pub. L. 110–140, §202(e)(2), (3), added subpars. (D) to (F).

Subsec. (*o*)(11). Pub. L. 110–140, §203(f), added par. (11).

Subsec. (*o*)(12). Pub. L. 110–140, §210(b), added par. (12).

Subsecs. (r), (s). Pub. L. 110–140, §247, redesignated subsecs. (r), relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels, and (s) as (s) and (t), respectively.

Subsec. (u). Pub. L. 110–140, §247, which directed amendment of this section by adding subsec. (u) at the end, was executed by adding subsec. (u) after subsec. (t) to reflect the probable intent of Congress.

Subsec. (v). Pub. L. 110–140, §209, added subsec. (v).

2005—Subsec. (b)(2). Pub. L. 109–58, §1505(1)(A), substituted ''shall, on a regular basis,'' for ''may also'' in introductory provisions.

Subsec. (b)(2)(A). Pub. L. 109–58, §1505(1)(B), added subpar. (A) and struck out former subpar. (A) which read as follows: ''to conduct tests to determine potential public health effects of such fuel or additive (including, but not limited to, carcinogenic, teratogenic, or mutagenic effects), and''.

Subsec. (b)(4). Pub. L. 109–58, §1505(2), added par. (4).

Subsec. (c)(4)(C). Pub. L. 109–58, §1541(a), designated existing provisions as cl. (i) and added cls. (ii) to (iv) and (v) relating to waiver authority.

Subsec. (c)(4)(C)(v). Pub. L. 109–58, §1541(b), added cl. (v) relating to approval of fuels.

Subsec. (d)(1). Pub. L. 109–58, §1501(b)(1), substituted ''(n), or (*o*)'' for ''or (n)'' in two places in first sentence and ''(m), or (*o*)'' for ''or (m)'' in second sentence.

Subsec. (d)(2). Pub. L. 109–58, §1501(b)(2), substituted ''(n), and (*o*)'' for ''and (n)'' in two places in first sentence.

Subsec. (h)(5), (6). Pub. L. 109–58, §1501(c), added par. (5) and redesignated former par. (5) as (6).

Subsec. (k)(1). Pub. L. 109–58, §1504(b), designated existing provisions as subpar. (A), inserted heading, substituted ''Not later than November 15, 1991,'' for ''Within 1 year after November 15, 1990,'', and added subpar. (B).

Subsec. (k)(2)(A). Pub. L. 109–58, §1504(a)(1)(A)(i), struck out ''(including the oxygen content requirement contained in subparagraph (B))'' after ''requirements of this paragraph''.

Subsec. (k)(2)(B) to (D). Pub. L. 109–58, §1504(a)(1)(A)(ii), (iii), redesignated subpars. (C) and (D) as (B) and (C), respectively, and struck out heading and text of former subpar. (B). Text read as follows: ''The oxygen content of the gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter. The Administrator may waive, in whole or in part, the application of this subparagraph for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard.''

Subsec. (k)(3)(A)(v). Pub. L. 109–58, §1504(a)(1)(B), struck out heading and text of cl. (v). Text read as follows: ''The oxygen content of the reformulated gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter.''

Subsec. (k)(6). Pub. L. 109–58, §1507, redesignated subpars. (A) and (B) as cls. (i) and (ii), respectively, of subpar. (A), inserted subpar. and cl. headings, in cl. (ii) substituted ''clause (i)'' for ''subparagraph (A)'' and ''this subparagraph'' for ''this paragraph'', and added subpar. (B).

Subsec. (k)(7)(A). Pub. L. 109–58, §1504(a)(1)(C)(i), redesignated cls. (ii) and (iii) as (i) and (ii), respectively, and struck out former cl. (i) which read as follows: ''has an oxygen content (by weight) that exceeds the minimum oxygen content specified in paragraph (2);''.

Subsec. (k)(7)(C)(ii), (iii). Pub. L. 109–58, §1504(a)(1)(C)(ii), redesignated cl. (iii) as (ii) and struck out former cl. (ii) which read as follows: ''An average gasoline oxygen content (by weight) for the nonattainment area (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) lower than the average gasoline oxygen content (by weight) that would occur in the absence of using any such credits.''

Subsec. (*o*). Pub. L. 109–58, §1501(a)(2), added subsec. (*o*). Former subsec. (*o*) redesignated (r) relating to fuel and fuel additive importers and importation.

Subsec. (q). Pub. L. 109–58, §1506, which directed amendment of this section by adding subsec. (q) after subsec. (p), was executed by making the addition after subsec. (*o*) to reflect the probable intent of Congress.

Subsec. (r). Pub. L. 109–58, §1512, added subsec. (r) relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels.

Pub. L. 109–58, §1501(a)(1), redesignated subsec. (*o*) as (r) relating to fuel and fuel additive importers and importation.

Subsec. (s). Pub. L. 109–58, §1513, added subsec. (s).

1990—Subsec. (a). Pub. L. 101–549, §212, inserted ''(including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles)'' after ''fuel or fuel additive''.

Subsecs. (b)(2)(B), (c)(1). Pub. L. 101–549, §212(b), (c), inserted reference to nonroad engine or nonroad vehicle.

Subsec. (c)(4)(A). Pub. L. 101–549, §213(a), substituted ''any characteristic or component of a'' for ''use of a'', inserted ''of the characteristic or component of a fuel or fuel additive'' after ''control or prohibition'' in cl. (i), and inserted ''characteristic or component of a'' after ''such'' in cl. (ii).

Subsec. (c)(4)(C). Pub. L. 101–549, §213(b), inserted last two sentences, authorizing Administrator to make a finding that State control or prohibition is necessary to achieve the standard.

Subsec. (d). Pub. L. 101–549, §228(d), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: ''Any person who violates subsection (a) or (f) or the regulations prescribed under subsection (c) or who fails to furnish any information required by the Administrator under subsection (b) shall forfeit and pay to the United States a civil penalty of $10,000 for each and every day of the continuance of such violation, which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Administrator may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection and he shall have authority to determine the facts upon all such applications.''

Subsec. (f)(1). Pub. L. 101–549, §214(a), designated existing provisions as subpar. (A) and added subpar. (B).

Subsec. (f)(3). Pub. L. 101–549, §214(b), substituted reference to paragraph (1)(A) for reference to paragraph (1).

Subsec. (g). Pub. L. 101–549, §215, amended subsec. (g) generally, substituting present provisions for provisions which defined ''gasoline'', ''refinery'', and ''small refinery'' and which limited Administrator's authority to require small refineries to reduce average lead content per gallon of gasoline.

Subsec. (h). Pub. L. 101–549, §216, added subsec. (h).

Subsec. (i). Pub. L. 101–549, §217, added subsec. (i).

Subsec. (j). Pub. L. 101–549, §218(a), added subsec. (j).

Subsecs. (k) to (m). Pub. L. 101–549, §219, added subsecs. (k) to (m).

Subsec. (n). Pub. L. 101–549, §220, added subsec. (n).

Subsec. (*o*). Pub. L. 101–549, §221, added subsec. (*o*).

1977—Subsec. (c)(1)(A). Pub. L. 95–95, §401(e), substituted ''if in the judgment of the Administrator any emission product of such fuel or fuel additive causes, or contributes, to air pollution which may reasonably be anticipated to endanger'' for ''if any emission products of such fuel or fuel additive will endanger''.

Subsec. (d). Pub. L. 95–95, §222(b), inserted ''or (f)'' after ''Any person who violates subsection (a)''.

Subsecs. (e), (f). Pub. L. 95–95, §222(a), added subsecs. (e) and (f).

Subsec. (f)(2). Pub. L. 95–190, §14(a)(73), inserted provision relating to waiver under par. (4) of this subsec., and struck out ''first'' before ''introduce''.

Subsec. (f)(4). Pub. L. 95–190, §14(a)(74), inserted provision relating to applicability of limitation specified under par. (2) of this subsection.

Subsec. (g). Pub. L. 95–95, §223, added subsec. (g).

1971—Subsec. (c)(3)(A). Pub. L. 92–157, §302(d), substituted ''purpose of obtaining'' for ''purpose of''.

Subsec. (d). Pub. L. 92–157, §302(e), substituted ''subsection (b)'' for ''subsection (c)'' where appearing the second time.

1970—Subsec. (a). Pub. L. 91–604, §9(a), substituted ''Administrator'' for ''Secretary'' as the registering authority, inserted references to fuel additives, and substituted the selling, offering for sale, and introduction into commerce of fuel or fuel additives, for the delivery for introduction into interstate commerce or delivery to another person who can reasonably be expected to deliver fuel into interstate commerce.

Subsec. (b). Pub. L. 91–604, §9(a), designated existing provisions as pars. (1) and (3), added par. (2), and substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (c). Pub. L. 91–604, §9(a), substituted provisions covering the control or prohibition of offending fuels and fuel additives, for provisions covering trade secrets and substituted ''Administrator'' for ''Secretary'' wherever appearing.

Subsec. (d). Pub. L. 91–604, §9(a), inserted references to failure to obey regulations prescribed under subsec. (c) and failure to furnish information required by the Administrator under subsec. (c), increased the daily civil penalty from $1,000 to $10,000 and substituted ''Administrator'' for ''Secretary''.

Subsec. (e). Pub. L. 91–604, §9(a), struck out subsec. (e) which directed the various United States Attorneys to prosecute for the recovery of forfeitures.

EFFECTIVE DATE OF 2007 AMENDMENT

Pub. L. 110–140, title II, §210(c), Dec. 19, 2007, 121 Stat. 1532, provided that: ''The amendments made by this title to section 211(*o*) of the Clean Air Act [42 U.S.C. 7545(*o*)] shall take effect January 1, 2009, except that the Administrator [of the Environmental Protection Agency] shall promulgate regulations to carry out such amendments not later than 1 year after the enactment of this Act [Dec. 19, 2007].''

Amendment by Pub. L. 110–140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

EFFECTIVE DATE OF 2005 AMENDMENT

Pub. L. 109–58, title XV, §1504(a)(2), Aug. 8, 2005, 119 Stat. 1077, provided that: ''The amendments made by paragraph (1) [amending this section] apply—

''(A) in the case of a State that has received a waiver under section 209(b) of the Clean Air Act (42 U.S.C. 7543(b)), beginning on the date of enactment of this Act [Aug. 8, 2005]; and

''(B) in the case of any other State, beginning 270 days after the date of enactment of this Act [Aug. 8, 2005].''

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

SAVINGS

Pub. L. 109–58, title XV, §1504(d), Aug. 8, 2005, 119 Stat. 1079, provided that:

''(1) IN GENERAL.—Nothing in this section [amending this section and enacting provisions set out as notes under this section] or any amendment made by this section affects or prejudices any legal claim or action with respect to regulations promulgated by the Administrator [of the Environmental Protection Agency] before the date of enactment of this Act [Aug. 8, 2005] regarding—

''(A) emissions of toxic air pollutants from motor vehicles; or

''(B) the adjustment of standards applicable to a specific refinery or importer made under those regulations.

''(2) ADJUSTMENT OF STANDARDS.—

''(A) APPLICABILITY.—The Administrator may apply any adjustments to the standards applicable to a refinery or importer under subparagraph (B)(iii)(I) of section 211(k)(1) of the Clean Air Act [42 U.S.C. 7545(k)(1)(B)(iii)(I)] (as added by subsection (b)(2)), except that—

''(i) the Administrator shall revise the adjustments to be based only on calendar years 1999 and 2000;

''(ii) any such adjustment shall not be made at a level below the average percentage of reductions of emissions of toxic air pollutants for reformulated gasoline supplied to PADD I during calendar years 1999 and 2000; and

''(iii) in the case of an adjustment based on toxic air pollutant emissions from reformulated gasoline significantly below the national annual average emissions of toxic air pollutants from all reformulated gasoline—

''(I) the Administrator may revise the adjustment to take account of the scope of the prohibition on methyl tertiary butyl ether imposed by a State; and

''(II) any such adjustment shall require the refiner or importer, to the maximum extent practicable, to maintain the reduction achieved during calendar years 1999 and 2000 in the average annual aggregate emissions of toxic air pollutants from reformulated gasoline produced or distributed by the refiner or importer.''

ENVIRONMENTAL AND RESOURCE CONSERVATION IMPACTS

Pub. L. 110–140, title II, §204, Dec. 19, 2007, 121 Stat. 1529, provided that:

''(a) IN GENERAL.—Not later than 3 years after the enactment of this section [Dec. 19, 2007] and every 3 years thereafter, the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall assess and report to Congress on the impacts to date and likely future impacts of the requirements of section 211(*o*) of the Clean Air Act [42 U.S.C. 7545(*o*)] on the following:

''(1) Environmental issues, including air quality, effects on hypoxia, pesticides, sediment, nutrient and pathogen levels in waters, acreage and function of waters, and soil environmental quality.

''(2) Resource conservation issues, including soil conservation, water availability, and ecosystem health and biodiversity, including impacts on forests, grasslands, and wetlands.

''(3) The growth and use of cultivated invasive or noxious plants and their impacts on the environment and agriculture.

In advance of preparing the report required by this subsection, the Administrator may seek the views of the National Academy of Sciences or another appropriate independent research institute. The report shall include the annual volume of imported renewable fuels and feedstocks for renewable fuels, and the environmental impacts outside the United States of producing such fuels and feedstocks. The report required by this subsection shall include recommendations for actions to address any adverse impacts found.

''(b) EFFECT ON AIR QUALITY AND OTHER ENVIRONMENTAL REQUIREMENTS.—Except as provided in section 211(*o*)(12) of the Clean Air Act [42 U.S.C. 7545(*o*)(12)], nothing in the amendments made by this title to section 211(*o*) of the Clean Air Act shall be construed as superseding, or limiting, any more environmentally protective requirement under the Clean Air Act [42 U.S.C. 7401 et seq.], or under any other provision of State or Federal law or regulation, including any environmental law or regulation.''

TRANSITION RULES

Pub. L. 110–140, title II, §210(a), Dec. 19, 2007, 121 Stat. 1532, provided that:

''(1) For calendar year 2008, transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), that is produced from facilities that commence construction after the date of enactment of this Act [Dec. 19, 2007] shall be treated as renewable fuel within the meaning of section 211(*o*) of the Clean Air Act [42 U.S.C. 7545(*o*)] only if it achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions. For calendar years 2008 and 2009, any ethanol plant that is fired with natural gas, biomass, or any combination thereof is deemed to be in compliance with such 20 percent reduction requirement and with the 20 percent reduction requirement of section 211(*o*)(1) of the Clean Air Act. The terms used in this subsection shall have the same meaning as provided in the amendment made by this Act to section 211(*o*) of the Clean Air Act.

''(2) Until January 1, 2009, the Administrator of the Environmental Protection Agency shall implement section 211(*o*) of the Clean Air Act and the rules promulgated under that section in accordance with the provisions of that section as in effect before the enactment of this Act and in accordance with the rules promulgated before the enactment of this Act, except that for calendar year 2008, the number '9.0' shall be substituted for the number '5.4' in the table in section 211(*o*)(2)(B) and in the corresponding rules promulgated to carry out those provisions. The Administrator is authorized to take such other actions as may be necessary to carry out this paragraph notwithstanding any other provision of law.''

SURVEY OF RENEWABLE FUEL MARKET

Pub. L. 109–58, title XV, §1501(d), Aug. 8, 2005, 119 Stat. 1075, provided that:

''(1) SURVEY AND REPORT.—Not later than December 1, 2006, and annually thereafter, the Administrator of the Environmental Protection Agency (in consultation with the Secretary [of Energy] acting through the Administrator of the Energy Information Administration) shall—

''(A) conduct, with respect to each conventional gasoline use area and each reformulated gasoline use area in each State, a survey to determine the market shares of—

''(i) conventional gasoline containing ethanol;

''(ii) reformulated gasoline containing ethanol;

''(iii) conventional gasoline containing renewable fuel; and

''(iv) reformulated gasoline containing renewable fuel; and

''(B) submit to Congress, and make publicly available, a report on the results of the survey under subparagraph (A).

''(2) RECORDKEEPING AND REPORTING REQUIREMENTS.—The Administrator of the Environmental Protection Agency (hereinafter in this subsection referred to as the 'Administrator') may require any refiner, blender, or importer to keep such records and make such reports as are necessary to ensure that the survey conducted under paragraph (1) is accurate. The Administrator, to avoid duplicative requirements, shall rely, to the extent practicable, on existing reporting and recordkeeping requirements and other information available to the Administrator including gasoline distribution patterns that include multistate use areas.

''(3) APPLICABLE LAW.—Activities carried out under this subsection shall be conducted in a manner designed to protect confidentiality of individual responses.''

FINDINGS

Pub. L. 109–58, title XV, §1502, Aug. 8, 2005, 119 Stat. 1076, provided that: ''Congress finds that—

''(1) since 1979, methyl tertiary butyl ether (hereinafter in this section referred to as 'MTBE') has been used nationwide at low levels in gasoline to replace lead as an octane booster or anti-knocking agent;

''(2) Public Law 101–549 (commonly known as the 'Clean Air Act Amendments of 1990') (42 U.S.C. 7401 et seq.) [see Tables for classification] established a fuel oxygenate standard under which reformulated gasoline must contain at least 2 percent oxygen by weight; and

''(3) the fuel industry responded to the fuel oxygenate standard established by Public Law 101–549 by making substantial investments in—

''(A) MTBE production capacity; and

''(B) systems to deliver MTBE-containing gasoline to the marketplace.''

CLAIMS FILED AFTER AUGUST 8, 2005

Pub. L. 109–58, title XV, § 1503, Aug. 8, 2005, 119 Stat. 1076, provided that: ''Claims and legal actions filed after the date of enactment of this Act [Aug. 8, 2005] related to allegations involving actual or threatened contamination of methyl tertiary butyl ether (MTBE) may be removed to the appropriate United States district court.''

FINDINGS AND SENSE OF CONGRESS ON ETHANOL USAGE

Pub. L. 100–203, title I, § 1508, Dec. 22, 1987, 101 Stat. 1330–29, provided that:

''(a) FINDINGS.—Congress finds that—

''(1) the United States is dependent for a large and growing share of its energy needs on the Middle East at a time when world petroleum reserves are declining;

''(2) the burning of gasoline causes pollution;

''(3) ethanol can be blended with gasoline to produce a cleaner source of fuel;

''(4) ethanol can be produced from grain, a renewable resource that is in considerable surplus in the United States;

''(5) the conversion of grain into ethanol would reduce farm program costs and grain surpluses; and

''(6) increasing the quantity of motor fuels that contain at least 10 percent ethanol from current levels to 50 percent by 1992 would create thousands of new jobs in ethanol production facilities.

''(b) SENSE OF CONGRESS.—It is the sense of Congress that the Administrator of the Environmental Protection Agency should use authority provided under the Clean Air Act (42 U.S.C. 7401 et seq.) to require greater use of ethanol as motor fuel.''

AGRICULTURAL MACHINERY: STUDY OF UNLEADED FUEL

Pub. L. 99–198, title XVII, § 1765, Dec. 23, 1985, 99 Stat. 1653, directed Administrator of EPA and Secretary of Agriculture jointly to conduct a study of use of fuel containing lead additives, and alternative lubricating additives, in gasoline engines that are used in agricultural machinery, and designed to combust fuel containing such additives, study to analyze potential for mechanical problems (including but not limited to valve recession) that may be associated with use of other fuels in such engines, and not later than Jan. 1, 1987, Administrator and Secretary to publish results of the study, with Administrator to publish in Federal Register notice of publication of such study and a summary thereof; directed Administrator, after notice and opportunity for hearing, but not later than 6 months after publication of the study, to make findings and recommendations on need for lead additives in gasoline to be used on a farm for farming purposes, including a determination of whether a modification of regulations limiting lead content of gasoline would be appropriate in the case of gasoline used on a farm for farming purposes, and submit to President and Congress a report containing the study, a summary of comments received during public hearing (including comments of Secretary), and findings and recommendations of Administrator made in accordance with clause (1), such report to be transmitted named congressional committees; directed Administrator between Jan. 1, 1986, and Dec. 31, 1987, to monitor actual lead content of leaded gasoline sold in the United States, with Administrator to determine average lead content of such gasoline for each 3-month period between Jan. 1, 1986, and Dec. 31, 1987, and if actual lead content falls below an average of 0.2 of a gram of lead per gallon in any such 3-month period, to report to Congress, and publish a notice thereof in Federal Register; provided that until Jan. 1, 1988, no regulation of Administrator issued under this section 211 could require an average lead content per gallon that is less than 0.1 of a gram per gallon; and authorized an appropriation.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7546. Renewable fuel

(a) Definitions

In this section:

(1) Municipal solid waste

The term ''municipal solid waste'' has the meaning given the term ''solid waste'' in section 6903 of this title.

(2) RFG State

The term ''RFG State'' means a State in which is located one or more covered areas (as defined in section 7545(k)(10)(D) of this title).

(3) Secretary

The term ''Secretary'' means the Secretary of Energy.

(b) Cellulosic biomass ethanol and municipal solid waste loan guarantee program

(1) In general

Funds may be provided for the cost (as defined in the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.)) of loan guarantees issued under title XIV of the Energy Policy Act[1] to carry out commercial demonstration projects for celluosic[2] biomass and sucrose-derived ethanol.

(2) Demonstration projects

(A) In general

The Secretary shall issue loan guarantees under this section to carry out not more than 4 projects to commercially demonstrate the feasibility and viability of producing cellulosic biomass ethanol or sucrose-derived ethanol, including at least 1 project that uses cereal straw as a feedstock and 1 project that uses municipal solid waste as a feedstock.

(B) Design capacity

Each project shall have a design capacity to produce at least 30,000,000 gallons of cellulosic biomass ethanol each year.

(3) Applicant assurances

An applicant for a loan guarantee under this section shall provide assurances, satisfactory to the Secretary, that—

(A) the project design has been validated through the operation of a continuous proc-

[1] See References in Text note below.

[2] So in original.

ess facility with a cumulative output of at least 50,000 gallons of ethanol;

(B) the project has been subject to a full technical review;

(C) the project is covered by adequate project performance guarantees;

(D) the project, with the loan guarantee, is economically viable; and

(E) there is a reasonable assurance of repayment of the guaranteed loan.

(4) Limitations

(A) Maximum guarantee

Except as provided in subparagraph (B), a loan guarantee under this section may be issued for up to 80 percent of the estimated cost of a project, but may not exceed $250,000,000 for a project.

(B) Additional guarantees

(i) In general

The Secretary may issue additional loan guarantees for a project to cover up to 80 percent of the excess of actual project cost over estimated project cost but not to exceed 15 percent of the amount of the original guarantee.

(ii) Principal and interest

Subject to subparagraph (A), the Secretary shall guarantee 100 percent of the principal and interest of a loan made under subparagraph (A).

(5) Equity contributions

To be eligible for a loan guarantee under this section, an applicant for the loan guarantee shall have binding commitments from equity investors to provide an initial equity contribution of at least 20 percent of the total project cost.

(6) Insufficient amounts

If the amount made available to carry out this section is insufficient to allow the Secretary to make loan guarantees for 3 projects described in subsection (b), the Secretary shall issue loan guarantees for one or more qualifying projects under this section in the order in which the applications for the projects are received by the Secretary.

(7) Approval

An application for a loan guarantee under this section shall be approved or disapproved by the Secretary not later than 90 days after the application is received by the Secretary.

(c) Authorization of appropriations for resource center

There is authorized to be appropriated, for a resource center to further develop bioconversion technology using low-cost biomass for the production of ethanol at the Center for Biomass-Based Energy at the Mississippi State University and the Oklahoma State University, $4,000,000 for each of fiscal years 2005 through 2007.

(d) Renewable fuel production research and development grants

(1) In general

The Administrator shall provide grants for the research into, and development and implementation of, renewable fuel production technologies in RFG States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol.

(2) Eligibility

(A) In general

The entities eligible to receive a grant under this subsection are academic institutions in RFG States, and consortia made up of combinations of academic institutions, industry, State government agencies, or local government agencies in RFG States, that have proven experience and capabilities with relevant technologies.

(B) Application

To be eligible to receive a grant under this subsection, an eligible entity shall submit to the Administrator an application in such manner and form, and accompanied by such information, as the Administrator may specify.

(3) Authorization of appropriations

There is authorized to be appropriated to carry out this subsection $25,000,000 for each of fiscal years 2006 through 2010.

(e) Cellulosic biomass ethanol conversion assistance

(1) In general

The Secretary may provide grants to merchant producers of cellulosic biomass ethanol in the United States to assist the producers in building eligible production facilities described in paragraph (2) for the production of cellulosic biomass ethanol.

(2) Eligible production facilities

A production facility shall be eligible to receive a grant under this subsection if the production facility—

(A) is located in the United States; and

(B) uses cellulosic biomass feedstocks derived from agricultural residues or municipal solid waste.

(3) Authorization of appropriations

There is authorized to be appropriated to carry out this subsection—

(A) $250,000,000 for fiscal year 2006; and

(B) $400,000,000 for fiscal year 2007.

(July 14, 1955, ch. 360, title II, §212, as added Pub. L. 109–58, title XV, §1511, Aug. 8, 2005, 119 Stat. 1086.)

REFERENCES IN TEXT

The Federal Credit Reform Act of 1990, referred to in subsec. (b)(1), is title V of Pub. L. 93–344, as added by Pub. L. 101–508, title XIII, §13201(a), Nov. 5, 1990, 104 Stat. 1388–609, as amended, which is classified generally to subchapter III (§661 et seq.) of chapter 17A of Title 2, The Congress. For complete classification of this Act to the Code, see Short Title note set out under section 621 of Title 2 and Tables.

The Energy Policy Act, referred to in subsec. (b)(1), probably means the Energy Policy Act of 2005, Pub. L. 109–58, Aug. 8, 2005, 119 Stat. 594. Title XIV of the Act probably should be a reference to title XV of the Act which relates to ethanol and motor fuels and enacted subchapter XIV (§16501 et seq.) of chapter 149 of this title and sections 6991i to 6991m and 7546 of this title, amended sections 6991 to 6991f, 6991h, 1991i, 7135, 7545,

and 13220 of this title, and enacted provisions set out as notes under section 7545 of this title. Title XIV of the Act, which contains miscellaneous provisions, is classified principally to subchapter XIII (§16491 et seq.) of chapter 149 of this title. For complete classification of this Act to the Code, see Short Title note set out under section 15801 of this title and Tables.

PRIOR PROVISIONS

A prior section 7546, act July 14, 1955, ch. 360, title II, §212, as added Dec. 31, 1970, Pub. L. 91–604, §10(c), 84 Stat. 1700; amended Dec. 31, 1970, Pub. L. 91–605, §202(a), 84 Stat. 1739; Apr. 9, 1973, Pub. L. 93–15, §1(b), 87 Stat. 11; June 22, 1974, Pub. L. 93–319, §13(b), 88 Stat. 265, related to low-emission vehicles, prior to repeal by Pub. L. 101–549, title II, §230(10), Nov. 15, 1990, 104 Stat. 2529.

A prior section 212 of act July 14, 1955, was renumbered section 213 by Pub. L. 91–604, renumbered section 214 by Pub. L. 93–319, and renumbered section 216 by Pub. L. 95–95, and is classified to section 7550 of this title.

§ 7547. Nonroad engines and vehicles

(a) Emissions standards

(1) The Administrator shall conduct a study of emissions from nonroad engines and nonroad vehicles (other than locomotives or engines used in locomotives) to determine if such emissions cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such study shall be completed within 12 months of November 15, 1990.

(2) After notice and opportunity for public hearing, the Administrator shall determine within 12 months after completion of the study under paragraph (1), based upon the results of such study, whether emissions of carbon monoxide, oxides of nitrogen, and volatile organic compounds from new and existing nonroad engines or nonroad vehicles (other than locomotives or engines used in locomotives) are significant contributors to ozone or carbon monoxide concentrations in more than 1 area which has failed to attain the national ambient air quality standards for ozone or carbon monoxide. Such determination shall be included in the regulations under paragraph (3).

(3) If the Administrator makes an affirmative determination under paragraph (2) the Administrator shall, within 12 months after completion of the study under paragraph (1), promulgate (and from time to time revise) regulations containing standards applicable to emissions from those classes or categories of new nonroad engines and new nonroad vehicles (other than locomotives or engines used in locomotives) which in the Administrator's judgment cause, or contribute to, such air pollution. Such standards shall achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines or vehicles to which such standards apply, giving appropriate consideration to the cost of applying such technology within the period of time available to manufacturers and to noise, energy, and safety factors associated with the application of such technology. In determining what degree of reduction will be available, the Administrator shall first consider standards equivalent in stringency to standards for comparable motor vehicles or engines (if any) regulated under section 7521 of this title, taking into account the technological feasibility, costs, safety, noise, and energy factors associated with achieving, as appropriate, standards of such stringency and lead time. The regulations shall apply to the useful life of the engines or vehicles (as determined by the Administrator).

(4) If the Administrator determines that any emissions not referred to in paragraph (2) from new nonroad engines or vehicles significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, the Administrator may promulgate (and from time to time revise) such regulations as the Administrator deems appropriate containing standards applicable to emissions from those classes or categories of new nonroad engines and new nonroad vehicles (other than locomotives or engines used in locomotives) which in the Administrator's judgment cause, or contribute to, such air pollution, taking into account costs, noise, safety, and energy factors associated with the application of technology which the Administrator determines will be available for the engines and vehicles to which such standards apply. The regulations shall apply to the useful life of the engines or vehicles (as determined by the Administrator).

(5) Within 5 years after November 15, 1990, the Administrator shall promulgate regulations containing standards applicable to emissions from new locomotives and new engines used in locomotives. Such standards shall achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the locomotives or engines to which such standards apply, giving appropriate consideration to the cost of applying such technology within the period of time available to manufacturers and to noise, energy, and safety factors associated with the application of such technology.

(b) Effective date

Standards under this section shall take effect at the earliest possible date considering the lead time necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period and energy and safety.

(c) Safe controls

Effective with respect to new engines or vehicles to which standards under this section apply, no emission control device, system, or element of design shall be used in such a new nonroad engine or new nonroad vehicle for purposes of complying with such standards if such device, system, or element of design will cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function. In determining whether an unreasonable risk exists, the Administrator shall consider factors including those described in section 7521(a)(4)(B) of this title.

(d) Enforcement

The standards under this section shall be subject to sections 7525, 7541, 7542, and 7543 of this title, with such modifications of the applicable regulations implementing such sections as the

Administrator deems appropriate, and shall be enforced in the same manner as standards prescribed under section 7521 of this title. The Administrator shall revise or promulgate regulations as may be necessary to determine compliance with, and enforce, standards in effect under this section.

(July 14, 1955, ch. 360, title II, § 213, as added Pub. L. 93–319, § 10, June 22, 1974, 88 Stat. 261; amended Pub. L. 101–549, title II, § 222(a), Nov. 15, 1990, 104 Stat. 2500.)

CODIFICATION

Section was formerly classified to section 1857f–6f of this title.

PRIOR PROVISIONS

A prior section 213 of act July 14, 1955, was renumbered section 214 by Pub. L. 93–319 and renumbered section 216 by Pub. L. 95–95, and is classified to section 7550 of this title.

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions requiring Administrator and Secretary of Transportation to conduct study on fuel economy improvement for new motor vehicles manufactured during and after model year 1980.

REGULATIONS RELATING TO STANDARDS TO REDUCE EMISSIONS

Pub. L. 108–199, div. G, title IV, § 428(b), Jan. 23, 2004, 118 Stat. 418, provided that: ''Not later than December 1, 2004, the Administrator of the Environmental Protection Agency shall propose regulations under the Clean Air Act [42 U.S.C. 7401 et seq.] that shall contain standards to reduce emissions from new nonroad spark-ignition engines smaller than 50 horsepower. Not later than December 31, 2005, the Administrator shall publish in the Federal Register final regulations containing such standards.''

§ 7548. Study of particulate emissions from motor vehicles

(a) Study and analysis

(1) The Administrator shall conduct a study concerning the effects on health and welfare of particulate emissions from motor vehicles or motor vehicle engines to which section 7521 of this title applies. Such study shall characterize and quantify such emissions and analyze the relationship of such emissions to various fuels and fuel additives.

(2) The study shall also include an analysis of particulate emissions from mobile sources which are not related to engine emissions (including, but not limited to tire debris, and asbestos from brake lining).

(b) Report to Congress

The Administrator shall report to the Congress the findings and results of the study conducted under subsection (a) not later than two years after August 7, 1977. Such report shall also include recommendations for standards or methods to regulate particulate emissions described in paragraph (2) of subsection (a).

(July 14, 1955, ch. 360, title II, § 214, as added Pub. L. 95–95, title II, § 224(d), Aug. 7, 1977, 91 Stat. 767.)

PRIOR PROVISIONS

A prior section 214 of act July 14, 1955, was renumbered section 216 by Pub. L. 95–95 and is classified to section 7550 of this title.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

STUDY ON SUSPENDED PARTICULATE MATTER

Pub. L. 95–95, title IV, § 403(a), Aug. 7, 1977, 91 Stat. 792, directed Administrator of EPA, not later than 18 months after Aug. 7, 1977, in cooperation with National Academy of Sciences, to study and report to Congress on relationship between size, weight, and chemical composition of suspended particulate matter and nature and degree of endangerment to public health or welfare presented by such particulate matter and availability of technology for controlling such particulate matter.

§ 7549. High altitude performance adjustments

(a) Instruction of the manufacturer

(1) Any action taken with respect to any element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter (including any alteration or adjustment of such element), shall be treated as not in violation of section 7522(a) of this title if such action is performed in accordance with high altitude adjustment instructions provided by the manufacturer under subsection (b) and approved by the Administrator.

(2) If the Administrator finds that adjustments or modifications made pursuant to instructions of the manufacturer under paragraph (1) will not insure emission control performance with respect to each standard under section 7521 of this title at least equivalent to that which would result if no such adjustments or modifications were made, he shall disapprove such instructions. Such finding shall be based upon minimum engineering evaluations consistent with good engineering practice.

(b) Regulations

(1) Instructions respecting each class or category of vehicles or engines to which this subchapter applies providing for such vehicle and engine adjustments and modifications as may be necessary to insure emission control performance at different altitudes shall be submitted by the manufacturer to the Administrator pursuant to regulations promulgated by the Administrator.

(2) Any knowing violation by a manufacturer of requirements of the Administrator under paragraph (1) shall be treated as a violation by such manufacturer of section 7522(a)(3) of this title for purposes of the penalties contained in section 7524 of this title.

(3) Such instructions shall provide, in addition to other adjustments, for adjustments for vehicles moving from high altitude areas to low altitude areas after the initial registration of such vehicles.

(c) Manufacturer parts

No instructions under this section respecting adjustments or modifications may require the use of any manufacturer parts (as defined in sec-

tion 7522(a) of this title) unless the manufacturer demonstrates to the satisfaction of the Administrator that the use of such manufacturer parts is necessary to insure emission control performance.

(d) State inspection and maintenance programs

Before January 1, 1981 the authority provided by this section shall be available in any high altitude State (as determined under regulations of the Administrator under regulations promulgated before August 7, 1977) but after December 31, 1980, such authority shall be available only in any such State in which an inspection and maintenance program for the testing of motor vehicle emissions has been instituted for the portions of the State where any national ambient air quality standard for auto-related pollutants has not been attained.

(e) High altitude testing

(1) The Administrator shall promptly establish at least one testing center (in addition to the testing centers existing on November 15, 1990) located at a site that represents high altitude conditions, to ascertain in a reasonable manner whether, when in actual use throughout their useful life (as determined under section 7521(d) of this title), each class or category of vehicle and engines to which regulations under section 7521 of this title apply conforms to the emissions standards established by such regulations. For purposes of this subsection, the term ''high altitude conditions'' refers to high altitude as defined in regulations of the Administrator in effect as of November 15, 1990.

(2) The Administrator, in cooperation with the Secretary of Energy and the Administrator of the Federal Transit Administration, and such other agencies as the Administrator deems appropriate, shall establish a research and technology assessment center to provide for the development and evaluation of less-polluting heavy-duty engines and fuels for use in buses, heavy-duty trucks, and non-road engines and vehicles, which shall be located at a high-altitude site that represents high-altitude conditions. In establishing and funding such a center, the Administrator shall give preference to proposals which provide for local cost-sharing of facilities and recovery of costs of operation through utilization of such facility for the purposes of this section.

(3) The Administrator shall designate at least one center at high-altitude conditions to provide research on after-market emission components, dual-fueled vehicles and conversion kits, the effects of tampering on emissions equipment, testing of alternate fuels and conversion kits, and the development of curricula, training courses, and materials to maximize the effectiveness of inspection and maintenance programs as they relate to promoting effective control of vehicle emissions at high-altitude elevations. Preference shall be given to existing vehicle emissions testing and research centers that have established reputations for vehicle emissions research and development and training, and that possess in-house Federal Test Procedure capacity.

(July 14, 1955, ch. 360, title II, § 215, as added Pub. L. 95–95, title II, § 211(b), Aug. 7, 1977, 91 Stat. 757; amended Pub. L. 95–190, § 14(a)(75), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title II, § 224, Nov. 15, 1990, 104 Stat. 2503; Pub. L. 102–240, title III, § 3004(b), Dec. 18, 1991, 105 Stat. 2088.)

CODIFICATION

In subsec. (d), ''August 7, 1977'' substituted for ''the date of enactment of this Act'' to reflect the probable intent of Congress that such date of enactment meant the date of enactment of Pub. L. 95–95.

AMENDMENTS

1990—Subsec. (e). Pub. L. 101–549 added subsec. (e).

1977—Subsec. (d). Pub. L. 95–190 substituted ''December 31, 1980'' for ''December 31, 1981''.

CHANGE OF NAME

''Federal Transit Administration'' substituted for ''Urban Mass Transportation Administration'' in subsec. (e)(2) pursuant to section 3004(b) of Pub. L. 102–240, set out as a note under section 107 of Title 49, Transportation.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7550. Definitions

As used in this part—

(1) The term ''manufacturer'' as used in sections 7521, 7522, 7525, 7541, and 7542 of this title means any person engaged in the manufacturing or assembling of new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines, or importing such vehicles or engines for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines, but shall not include any dealer with respect to new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines received by him in commerce.

(2) The term ''motor vehicle'' means any self-propelled vehicle designed for transporting persons or property on a street or highway.

(3) Except with respect to vehicles or engines imported or offered for importation, the term ''new motor vehicle'' means a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser; and the term ''new motor vehicle engine'' means an engine in a new motor vehicle or a motor vehicle engine the equitable or legal title to which has never been transferred to the ultimate purchaser; and with respect to imported vehicles or engines, such terms mean a motor vehicle and engine, respectively, manufactured after the effective date of a regulation issued under section 7521 of this title which is applicable to such vehicle or engine (or which would be applicable to such vehicle or engine had it been manufactured for importation into the United States).

(4) The term ''dealer'' means any person who is engaged in the sale or the distribution of new motor vehicles or new motor vehicle engines to the ultimate purchaser.

(5) The term ''ultimate purchaser'' means, with respect to any new motor vehicle or new motor vehicle engine, the first person who in good faith purchases such new motor vehicle or new engine for purposes other than resale.

(6) The term ''commerce'' means (A) commerce between any place in any State and any place outside thereof; and (B) commerce wholly within the District of Columbia.

(7) VEHICLE CURB WEIGHT, GROSS VEHICLE WEIGHT RATING, LIGHT-DUTY TRUCK, LIGHT-DUTY VEHICLE, AND LOADED VEHICLE WEIGHT.—The terms ''vehicle curb weight'', ''gross vehicle weight rating'' (GVWR), ''light-duty truck'' (LDT), light-duty vehicle,[1] and ''loaded vehicle weight'' (LVW) have the meaning provided in regulations promulgated by the Administrator and in effect as of November 15, 1990. The abbreviations in parentheses corresponding to any term referred to in this paragraph shall have the same meaning as the corresponding term.

(8) TEST WEIGHT.—The term ''test weight'' and the abbreviation ''tw'' mean the vehicle curb weight added to the gross vehicle weight rating (gvwr) and divided by 2.

(9) MOTOR VEHICLE OR ENGINE PART MANUFACTURER.—The term ''motor vehicle or engine part manufacturer'' as used in sections 7541 and 7542 of this title means any person engaged in the manufacturing, assembling or rebuilding of any device, system, part, component or element of design which is installed in or on motor vehicles or motor vehicle engines.

(10) NONROAD ENGINE.—The term ''nonroad engine'' means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

(11) NONROAD VEHICLE.—The term ''nonroad vehicle'' means a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition.

(July 14, 1955, ch. 360, title II, §216, formerly §208, as added Pub. L. 89–272, title I, §101(8), Oct. 20, 1965, 79 Stat. 994; renumbered §212, and amended Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 503; renumbered §213, and amended Pub. L. 91–604, §§8(a), 10(d), 11(a)(2)(A), Dec. 31, 1970, 84 Stat. 1694, 1703, 1705; renumbered §214, Pub. L. 93–319, §10, June 22, 1974, 88 Stat. 261; renumbered §216, Pub. L. 95–95, title II, §224(d), Aug. 7, 1977, 91 Stat. 767; Pub. L. 101–549, title II, §223, Nov. 15, 1990, 104 Stat. 2503.)

CODIFICATION

Section was formerly classified to section 1857f–7 of this title.

AMENDMENTS

1990—Par. (1). Pub. L. 101–549, §223(b), inserted references to new nonroad vehicles or new nonroad engines.

Pars. (7) to (11). Pub. L. 101–549, §223(a), added pars. (7) to (11).

1970—Pub. L. 91–604, §11(a)(2)(A), substituted ''part'' for ''subchapter''.

[1] So in original. Probably should be set off by quotation marks.

Par. (1). Pub. L. 91–604, §10(d)(1), inserted reference to section 7521 of this title.

Par. (3). Pub. L. 91–604, §10(d)(2), inserted provisions which defined such terms with respect to imported vehicles or engines.

1967—Pub. L. 90–148 inserted ''as used in sections 7522, 7525, 7541, and 7542 of this title'' after ''manufacturer'' in par. (1).

§ 7551. Omitted

Section, Pub. L. 95–95, title II, §203, Aug. 7, 1977, 91 Stat. 754; Pub. L. 97–375, title I, §106(a), Dec. 21, 1982, 96 Stat. 1820, which required the Administrator of the Environmental Protection Agency to report to Congress respecting the motor vehicle fuel consumption associated with the standards applicable for the immediately preceding model year, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, the 5th item on page 165 of House Document No. 103–7. Section was enacted as part of the Clean Air Act Amendments of 1977, and not as part of the Clean Air Act which comprises this chapter.

§ 7552. Motor vehicle compliance program fees

(a) Fee collection

Consistent with section 9701 of title 31, the Administrator may promulgate (and from time to time revise) regulations establishing fees to recover all reasonable costs to the Administrator associated with—

(1) new vehicle or engine certification under section 7525(a) of this title or part C,

(2) new vehicle or engine compliance monitoring and testing under section 7525(b) of this title or part C, and

(3) in-use vehicle or engine compliance monitoring and testing under section 7541(c) of this title or part C.

The Administrator may establish for all foreign and domestic manufacturers a fee schedule based on such factors as the Administrator finds appropriate and equitable and nondiscriminatory, including the number of vehicles or engines produced under a certificate of conformity. In the case of heavy-duty engine and vehicle manufacturers, such fees shall not exceed a reasonable amount to recover an appropriate portion of such reasonable costs.

(b) Special Treasury fund

Any fees collected under this section shall be deposited in a special fund in the United States Treasury for licensing and other services which thereafter shall be available for appropriation, to remain available until expended, to carry out the Agency's activities for which the fees were collected.

(c) Limitation on fund use

Moneys in the special fund referred to in subsection (b) shall not be used until after the first fiscal year commencing after the first July 1 when fees are paid into the fund.

(d) Administrator's testing authority

Nothing in this subsection shall be construed to limit the Administrator's authority to require manufacturer or confirmatory testing as provided in this part.

(July 14, 1955, ch. 360, title II, §217, as added Pub. L. 101–549, title II, §225, Nov. 15, 1990, 104 Stat. 2504.)

§ 7553. Prohibition on production of engines requiring leaded gasoline

The Administrator shall promulgate regulations applicable to motor vehicle engines and nonroad engines manufactured after model year 1992 that prohibit the manufacture, sale, or introduction into commerce of any engine that requires leaded gasoline.

(July 14, 1955, ch. 360, title II, § 218, as added Pub. L. 101–549, title II, § 226, Nov. 15, 1990, 104 Stat. 2505.)

§ 7554. Urban bus standards

(a) Standards for model years after 1993

Not later than January 1, 1992, the Administrator shall promulgate regulations under section 7521(a) of this title applicable to urban buses for the model year 1994 and thereafter. Such standards shall be based on the best technology that can reasonably be anticipated to be available at the time such measures are to be implemented, taking costs, safety, energy, lead time, and other relevant factors into account. Such regulations shall require that such urban buses comply with the provisions of subsection (b) of this section (and subsection (c) of this subsection,[1] if applicable) in addition to compliance with the standards applicable under section 7521(a) of this title for heavy-duty vehicles of the same type and model year.

(b) PM standard

(1) 50 percent reduction

The standards under section 7521(a) of this title applicable to urban buses shall require that, effective for the model year 1994 and thereafter, emissions of particulate matter (PM) from urban buses shall not exceed 50 percent of the emissions of particulate matter (PM) allowed under the emission standard applicable under section 7521(a) of this title as of November 15, 1990, for particulate matter (PM) in the case of heavy-duty diesel vehicles and engines manufactured in the model year 1994.

(2) Revised reduction

The Administrator shall increase the level of emissions of particulate matter allowed under the standard referred to in paragraph (1) if the Administrator determines that the 50 percent reduction referred to in paragraph (1) is not technologically achievable, taking into account durability, costs, lead time, safety, and other relevant factors. The Administrator may not increase such level of emissions above 70 percent of the emissions of particulate matter (PM) allowed under the emission standard applicable under section 7521(a) of this title as of November 15, 1990, for particulate matter (PM) in the case of heavy-duty diesel vehicles and engines manufactured in the model year 1994.

(3) Determination as part of rule

As part of the rulemaking under subsection (a), the Administrator shall make a determination as to whether the 50 percent reduction referred to in paragraph (1) is technologically achievable, taking into account durability, costs, lead time, safety, and other relevant factors.

(c) Low-polluting fuel requirement

(1) Annual testing

Beginning with model year 1994 buses, the Administrator shall conduct annual tests of a representative sample of operating urban buses subject to the particulate matter (PM) standard applicable pursuant to subsection (b) to determine whether such buses comply with such standard in use over their full useful life.

(2) Promulgation of additional low-polluting fuel requirement

(A) If the Administrator determines, based on the testing under paragraph (1), that urban buses subject to the particulate matter (PM) standard applicable pursuant to subsection (b) do not comply with such standard in use over their full useful life, he shall revise the standards applicable to such buses to require (in addition to compliance with the PM standard applicable pursuant to subsection (b)) that all new urban buses purchased or placed into service by owners or operators of urban buses in all metropolitan statistical areas or consolidated metropolitan statistical areas with a 1980 population of 750,000 or more shall be capable of operating, and shall be exclusively operated, on low-polluting fuels. The Administrator shall establish the pass-fail rate for purposes of testing under this subparagraph.

(B) The Administrator shall promulgate a schedule phasing in any low-polluting fuel requirement established pursuant to this paragraph to an increasing percentage of new urban buses purchased or placed into service in each of the first 5 model years commencing 3 years after the determination under subparagraph (A). Under such schedule 100 percent of new urban buses placed into service in the fifth model year commencing 3 years after the determination under subparagraph (A) shall comply with the low-polluting fuel requirement established pursuant to this paragraph.

(C) The Administrator may extend the requirements of this paragraph to metropolitan statistical areas or consolidated metropolitan statistical areas with a 1980 population of less than 750,000, if the Administrator determines that a significant benefit to public health could be expected to result from such extension.

(d) Retrofit requirements

Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations under section 7521(a) of this title requiring that urban buses which—

(1) are operating in areas referred to in subparagraph (A) of subsection (c)(2) (or subparagraph (C) of subsection (c)(2) if the Administrator has taken action under that subparagraph);

(2) were not subject to standards in effect under the regulations under subsection (a) of this section; and

(3) have their engines replaced or rebuilt after January 1, 1995,

shall comply with an emissions standard or emissions control technology requirement es-

[1] So in original. Probably should be ''section,''.

tablished by the Administrator in such regulations. Such emissions standard or emissions control technology requirement shall reflect the best retrofit technology and maintenance practices reasonably achievable.

(e) Procedures for administration and enforcement

The Administrator shall establish, within 18 months after November 15, 1990, and in accordance with section 7525(h) of this title, procedures for the administration and enforcement of standards for buses subject to standards under this section, testing procedures, sampling protocols, in-use compliance requirements, and criteria governing evaluation of buses. Procedures for testing (including, but not limited to, certification testing) shall reflect actual operating conditions.

(f) Definitions

For purposes of this section—

(1) Urban bus

The term ''urban bus'' has the meaning provided under regulations of the Administrator promulgated under section 7521(a) of this title.

(2) Low-polluting fuel

The term ''low-polluting fuel'' means methanol, ethanol, propane, or natural gas, or any comparably low-polluting fuel. In determining whether a fuel is comparably low-polluting, the Administrator shall consider both the level of emissions of air pollutants from vehicles using the fuel and the contribution of such emissions to ambient levels of air pollutants. For purposes of this paragraph, the term ''methanol'' includes any fuel which contains at least 85 percent methanol unless the Administrator increases such percentage as he deems appropriate to protect public health and welfare.

(July 14, 1955, ch. 360, title II, § 219, as added Pub. L. 101–549, title II, § 227[(a)], Nov. 15, 1990, 104 Stat. 2505.)

PART B—AIRCRAFT EMISSION STANDARDS

§ 7571. Establishment of standards

(a) Study; proposed standards; hearings; issuance of regulations

(1) Within 90 days after December 31, 1970, the Administrator shall commence a study and investigation of emissions of air pollutants from aircraft in order to determine—

(A) the extent to which such emissions affect air quality in air quality control regions throughout the United States, and

(B) the technological feasibility of controlling such emissions.

(2)(A) The Administrator shall, from time to time, issue proposed emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines which in his judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare.

(B)(i) The Administrator shall consult with the Administrator of the Federal Aviation Administration on aircraft engine emission standards.

(ii) The Administrator shall not change the aircraft engine emission standards if such change would significantly increase noise and adversely affect safety.

(3) The Administrator shall hold public hearings with respect to such proposed standards. Such hearings shall, to the extent practicable, be held in air quality control regions which are most seriously affected by aircraft emissions. Within 90 days after the issuance of such proposed regulations, he shall issue such regulations with such modifications as he deems appropriate. Such regulations may be revised from time to time.

(b) Effective date of regulations

Any regulation prescribed under this section (and any revision thereof) shall take effect after such period as the Administrator finds necessary (after consultation with the Secretary of Transportation) to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

(c) Regulations which create hazards to aircraft safety

Any regulations in effect under this section on August 7, 1977, or proposed or promulgated thereafter, or amendments thereto, with respect to aircraft shall not apply if disapproved by the President, after notice and opportunity for public hearing, on the basis of a finding by the Secretary of Transportation that any such regulation would create a hazard to aircraft safety. Any such finding shall include a reasonably specific statement of the basis upon which the finding was made.

(July 14, 1955, ch. 360, title II, § 231, as added Pub. L. 91–604, § 11(a)(1), Dec. 31, 1970, 84 Stat. 1703; amended Pub. L. 95–95, title II, § 225, title IV, § 401(f), Aug. 7, 1977, 91 Stat. 769, 791; Pub. L. 104–264, title IV, § 406(b), Oct. 9, 1996, 110 Stat. 3257.)

CODIFICATION

Section was formerly classified to section 1857f–9 of this title.

AMENDMENTS

1996—Subsec. (a)(2). Pub. L. 104–264 designated existing provisions as subpar. (A) and added subpar. (B).

1977—Subsec. (a)(2). Pub. L. 95–95, § 401(f), substituted ''The Administrator shall, from time to time, issue proposed emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines which in his judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare'' for ''Within 180 days after commencing such study and investigation, the Administrator shall publish a report of such study and investigation and shall issue proposed emission standards applicable to emissions of any air pollutant from any class or classes of aircraft or aircraft engines which in his judgment cause or contribute to or are likely to cause or contribute to air pollution which endangers the public health or welfare''.

Subsec. (c). Pub. L. 95–95, § 225, substituted ''Any regulations in effect under this section on August 7, 1977, or proposed or promulgated thereafter, or amendments thereto, with respect to aircraft shall not apply if disapproved by the President, after notice and opportunity for public hearing, on the basis of a finding by the Secretary of Transportation that any such regula-

tion would create a hazard to aircraft safety'' for ''Any regulations under this section, or amendments thereto, with respect to aircraft, shall be prescribed only after consultation with the Secretary of Transportation in order to assure appropriate consideration for aircraft safety'' and inserted provision that findings include a reasonably specific statement of the basis upon which the finding was made.

EFFECTIVE DATE OF 1996 AMENDMENT

Except as otherwise specifically provided, amendment by Pub. L. 104–264 applicable only to fiscal years beginning after Sept. 30, 1996, and not to be construed as affecting funds made available for a fiscal year ending before Oct. 1, 1996, see section 3 of Pub. L. 104–264, set out as a note under section 106 of Title 49, Transportation.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

STUDY AND INVESTIGATION OF UNINSTALLED AIRCRAFT ENGINES

Pub. L. 101–549, title II, § 233, Nov. 15, 1990, 104 Stat. 2529, provided that:

''(a) STUDY.—The Administrator of the Environmental Protection Agency and the Secretary of Transportation, in consultation with the Secretary of Defense, shall commence a study and investigation of the testing of uninstalled aircraft engines in enclosed test cells that shall address at a minimum the following issues and such other issues as they shall deem appropriate—

''(1) whether technologies exist to control some or all emissions of oxides of nitrogen from test cells;

''(2) the effectiveness of such technologies;

''(3) the cost of implementing such technologies;

''(4) whether such technologies affect the safety, design, structure, operation, or performance of aircraft engines;

''(5) whether such technologies impair the effectiveness and accuracy of aircraft engine safety design, and performance tests conducted in test cells; and

''(6) the impact of not controlling such oxides of nitrogen in the applicable nonattainment areas and on other sources, stationary and mobile, on oxides of nitrogen in such areas.

''(b) REPORT, AUTHORITY TO REGULATE.—Not later than 24 months after enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the Administrator of the Environmental Protection Agency and the Secretary of Transportation shall submit to Congress a report of the study conducted under this section. Following the completion of such study, any of the States may adopt or enforce any standard for emissions of oxides of nitrogen from test cells only after issuing a public notice stating whether such standards are in accordance with the findings of the study.''

§ 7572. Enforcement of standards

(a) Regulations to insure compliance with standards

The Secretary of Transportation, after consultation with the Administrator, shall prescribe regulations to insure compliance with all standards prescribed under section 7571 of this title by the Administrator. The regulations of the Secretary of Transportation shall include provisions making such standards applicable in the issuance, amendment, modification, suspension, or revocation of any certificate authorized by part A of subtitle VII of title 49 or the Department of Transportation Act. Such Secretary shall insure that all necessary inspections are accomplished, and,[1] may execute any power or duty vested in him by any other provision of law in the execution of all powers and duties vested in him under this section.

(b) Notice and appeal rights

In any action to amend, modify, suspend, or revoke a certificate in which violation of an emission standard prescribed under section 7571 of this title or of a regulation prescribed under subsection (a) is at issue, the certificate holder shall have the same notice and appeal rights as are prescribed for such holders in part A of subtitle VII of title 49 or the Department of Transportation Act, except that in any appeal to the National Transportation Safety Board, the Board may amend, modify, or revoke the order of the Secretary of Transportation only if it finds no violation of such standard or regulation and that such amendment, modification, or revocation is consistent with safety in air transportation.

(July 14, 1955, ch. 360, title II, § 232, as added Pub. L. 91–604, § 11(a)(1), Dec. 31, 1970, 84 Stat. 1704.)

REFERENCES IN TEXT

The Department of Transportation Act, referred to in subsecs. (a) and (b), is Pub. L. 89–670, Oct. 15, 1966, 80 Stat. 931, as amended, which was classified principally to sections 1651 to 1660 of former Title 49, Transportation. The Act was repealed and the provisions thereof reenacted in Title 49, Transportation, by Pub. L. 97–449, Jan. 12, 1983, 96 Stat. 2413, and Pub. L. 103–272, July 5, 1994, 108 Stat. 745. The Act was also repealed by Pub. L. 104–287, § 7(5), Oct. 11, 1996, 110 Stat. 3400. For disposition of sections of former Title 49, see Table at the beginning of Title 49.

CODIFICATION

In subsecs. (a) and (b), ''part A of subtitle VII of title 49'' substituted for ''the Federal Aviation Act [49 App. U.S.C. 1301 et seq.]'' and ''the Federal Aviation Act of 1958 [49 App. U.S.C. 1301 et seq.]'' on authority of Pub. L. 103–272, § 6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

Section was formerly classified to section 1857f–10 of this title.

§ 7573. State standards and controls

No State or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions of any air pollutant from any aircraft or engine thereof unless such standard is identical to a standard applicable to such aircraft under this part.

---

[1] So in original. The comma probably should not appear.

(July 14, 1955, ch. 360, title II, § 233, as added Pub. L. 91–604, § 11(a)(1), Dec. 31, 1970, 84 Stat. 1704.)

CODIFICATION

Section was formerly classified to section 1857f–11 of this title.

§ 7574. Definitions

Terms used in this part (other than Administrator) shall have the same meaning as such terms have under section 40102(a) of title 49.

(July 14, 1955, ch. 360, title II, § 234, as added Pub. L. 91–604, § 11(a)(1), Dec. 31, 1970, 84 Stat. 1705.)

CODIFICATION

In text, ''section 40102(a) of title 49'' substituted for ''section 101 of the Federal Aviation Act of 1958'' on authority of Pub. L. 103–272, § 6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

Section was formerly classified to section 1857f–12 of this title.

PART C—CLEAN FUEL VEHICLES

§ 7581. Definitions

For purposes of this part—

(1) Terms defined in part A

The definitions applicable to part A under section 7550 of this title shall also apply for purposes of this part.

(2) Clean alternative fuel

The term ''clean alternative fuel'' means any fuel (including methanol, ethanol, or other alcohols (including any mixture thereof containing 85 percent or more by volume of such alcohol with gasoline or other fuels), reformulated gasoline, diesel, natural gas, liquefied petroleum gas, and hydrogen) or power source (including electricity) used in a clean-fuel vehicle that complies with the standards and requirements applicable to such vehicle under this subchapter when using such fuel or power source. In the case of any flexible fuel vehicle or dual fuel vehicle, the term ''clean alternative fuel'' means only a fuel with respect to which such vehicle was certified as a clean-fuel vehicle meeting the standards applicable to clean-fuel vehicles under section 7583(d)(2) of this title when operating on clean alternative fuel (or any CARB standards which replaces such standards pursuant to section 7583(e) of this title).

(3) NMOG

The term nonmethane organic gas (''NMOG'') means the sum of nonoxygenated and oxygenated hydrocarbons contained in a gas sample, including, at a minimum, all oxygenated organic gases containing 5 or fewer carbon atoms (i.e., aldehydes, ketones, alcohols, ethers, etc.), and all known alkanes, alkenes, alkynes, and aromatics containing 12 or fewer carbon atoms. To demonstrate compliance with a NMOG standard, NMOG emissions shall be measured in accordance with the ''California Non-Methane Organic Gas Test Procedures''. In the case of vehicles using fuels other than base gasoline, the level of NMOG emissions shall be adjusted based on the reactivity of the emissions relative to vehicles using base gasoline.

(4) Base gasoline

The term ''base gasoline'' means gasoline which meets the following specifications:

Specifications of Base Gasoline Used as Basis for Reactivity Readjustment:	
API gravity	57.8
Sulfur, ppm	317
Color	Purple
Benzene, vol. %	1.35
Reid vapor pressure	8.7
Drivability	1195
Antiknock index	87.3
Distillation, D–86 °F	
IBP	92
10%	126
50%	219
90%	327
EP	414
Hydrocarbon Type, Vol. % FIA:	
Aromatics	30.9
Olefins	8.2
Saturates	60.9

The Administrator shall modify the definitions of NMOG, base gasoline, and the methods for making reactivity adjustments, to conform to the definitions and method used in California under the Low-Emission Vehicle and Clean Fuel Regulations of the California Air Resources Board, so long as the California definitions are, in the aggregate, at least as protective of public health and welfare as the definitions in this section.

(5) Covered fleet

The term ''covered fleet'' means 10 or more motor vehicles which are owned or operated by a single person. In determining the number of vehicles owned or operated by a single person for purposes of this paragraph, all motor vehicles owned or operated, leased or otherwise controlled by such person, by any person who controls such person, by any person controlled by such person, and by any person under common control with such person shall be treated as owned by such person. The term ''covered fleet'' shall not include motor vehicles held for lease or rental to the general public, motor vehicles held for sale by motor vehicle dealers (including demonstration vehicles), motor vehicles used for motor vehicle manufacturer product evaluations or tests, law enforcement and other emergency vehicles, or nonroad vehicles (including farm and construction vehicles).

(6) Covered fleet vehicle

The term ''covered fleet vehicle'' means only a motor vehicle which is—

(i) in a vehicle class for which standards are applicable under this part; and

(ii) in a covered fleet which is centrally fueled (or capable of being centrally fueled).

No vehicle which under normal operations is garaged at a personal residence at night shall be considered to be a vehicle which is capable of being centrally fueled within the meaning of this paragraph.

(7) Clean-fuel vehicle

The term ''clean-fuel vehicle'' means a vehicle in a class or category of vehicles which has

been certified to meet for any model year the clean-fuel vehicle standards applicable under this part for that model year to clean-fuel vehicles in that class or category.

(July 14, 1955, ch. 360, title II, § 241, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2511.)

§ 7582. Requirements applicable to clean-fuel vehicles

(a) Promulgation of standards

Not later than 24 months after November 15, 1990, the Administrator shall promulgate regulations under this part containing clean-fuel vehicle standards for the clean-fuel vehicles specified in this part.

(b) Other requirements

Clean-fuel vehicles of up to 8,500 gvwr subject to standards set forth in this part shall comply with all motor vehicle requirements of this subchapter (such as requirements relating to onboard diagnostics, evaporative emissions, etc.) which are applicable to conventional gasoline-fueled vehicles of the same category and model year, except as provided in section 7584 of this title with respect to administration and enforcement, and except to the extent that any such requirement is in conflict with the provisions of this part. Clean-fuel vehicles of 8,500 gvwr or greater subject to standards set forth in this part shall comply with all requirements of this subchapter which are applicable in the case of conventional gasoline-fueled or diesel fueled vehicles of the same category and model year, except as provided in section 7584 of this title with respect to administration and enforcement, and except to the extent that any such requirement is in conflict with the provisions of this part.

(c) In-use useful life and testing

(1) In the case of light-duty vehicles and light-duty trucks up to 6,000 lbs gvwr, the useful life for purposes of determining in-use compliance with the standards under section 7583 of this title shall be—

(A) a period of 5 years or 50,000 miles (or the equivalent) whichever first occurs, in the case of standards applicable for purposes of certification at 50,000 miles; and

(B) a period of 10 years or 100,000 miles (or the equivalent) whichever first occurs, in the case of standards applicable for purposes of certification at 100,000 miles, except that in-use testing shall not be done for a period beyond 7 years or 75,000 miles (or the equivalent) whichever first occurs.

(2) In the case of light-duty trucks of more than 6,000 lbs gvwr, the useful life for purposes of determining in-use compliance with the standards under section 7583 of this title shall be—

(A) a period of 5 years or 50,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 50,000 miles; and

(B) a period of 11 years or 120,000 miles (or the equivalent) whichever first occurs in the case of standards applicable for purposes of certification at 120,000 miles, except that in-use testing shall not be done for a period beyond 7 years or 90,000 miles (or the equivalent) whichever first occurs.

(July 14, 1955, ch. 360, title II, § 242, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2513.)

§ 7583. Standards for light-duty clean-fuel vehicles

(a) Exhaust standards for light-duty vehicles and certain light-duty trucks

The standards set forth in this subsection shall apply in the case of clean-fuel vehicles which are light-duty trucks of up to 6,000 lbs. gross vehicle weight rating (gvwr) (but not including light-duty trucks of more than 3,750 lbs. loaded vehicle weight (lvw)) or light-duty vehicles:

(1) Phase I

Beginning with model year 1996, for the air pollutants specified in the following table, the clean-fuel vehicle standards under this section shall provide that vehicle exhaust emissions shall not exceed the levels specified in the following table:

PHASE I CLEAN FUEL VEHICLE EMISSION STANDARDS FOR LIGHT-DUTY TRUCKS OF UP TO 3,750 LBS. LVW AND UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Pollutant	NMOG	CO	NO_x	PM	HCHO (formaldehyde)
50,000 mile standard.	0.125	3.4	0.4	.....	0.015
100,000 mile standard.	0.156	4.2	0.6	0.08*	0.018

Standards are expressed in grams per mile (gpm).

*Standards for particulates (PM) shall apply only to diesel-fueled vehicles.

In the case of the 50,000 mile standards and the 100,000 mile standards, for purposes of certification, the applicable useful life shall be 50,000 miles or 100,000 miles, respectively.

(2) Phase II

Beginning with model year 2001, for air pollutants specified in the following table, the clean-fuel vehicle standards under this section shall provide that vehicle exhaust emissions shall not exceed the levels specified in the following table.

PHASE II CLEAN FUEL VEHICLE EMISSION STANDARDS FOR LIGHT-DUTY TRUCKS OF UP TO 3,750 LBS. LVW AND UP TO 6,000 LBS. GVWR AND LIGHT-DUTY VEHICLES

Pollutant	NMOG	CO	NO_x	PM*	HCHO (formaldehyde)
50,000 mile standard.	0.075	3.4	0.2	.....	0.015
100,000 mile standard.	0.090	4.2	0.3	0.08	0.018

Standards are expressed in grams per mile (gpm).

*Standards for particulates (PM) shall apply only to diesel-fueled vehicles.

In the case of the 50,000 mile standards and the 100,000 mile standards, for purposes of certification, the applicable useful life shall be 50,000 miles or 100,000 miles, respectively.

(b) Exhaust standards for light-duty trucks of more than 3,750 lbs. LVW and up to 5,750 lbs. LVW and up to 6,000 lbs. GVWR

The standards set forth in this paragraph[1] shall apply in the case of clean-fuel vehicles which are light-duty trucks of more than 3,750 lbs. loaded vehicle weight (lvw) but not more than 5,750 lbs. lvw and not more than 6,000 lbs. gross weight rating (GVWR):

(1) Phase I

Beginning with model year 1996, for the air pollutants specified in the following table, the clean-fuel vehicle standards under this section shall provide that vehicle exhaust emissions shall not exceed the levels specified in the following table.

PHASE I CLEAN FUEL VEHICLE EMISSION STANDARDS FOR LIGHT-DUTY TRUCKS OF MORE THAN 3,750 LBS. AND UP TO 5,750 LBS. LVW AND UP TO 6,000 LBS. GVWR

Pollutant	NMOG	CO	NO_x	PM*	HCHO (formaldehyde)
50,000 mile standard.	0.160	4.4	0.7	.....	0.018
100,000 mile standard.	0.200	5.5	0.9	0.08	0.023

Standards are expressed in grams per mile (gpm).
*Standards for particulates (PM) shall apply only to diesel-fueled vehicles.
In the case of the 50,000 mile standards and the 100,000 mile standards, for purposes of certification, the applicable useful life shall be 50,000 miles or 100,000 miles, respectively.

(2) Phase II

Beginning with model year 2001, for the air pollutants specified in the following table, the clean-fuel vehicle standards under this section shall provide that vehicle exhaust emissions shall not exceed the levels specified in the following table.

PHASE II CLEAN FUEL VEHICLE EMISSION STANDARDS FOR LIGHT-DUTY TRUCKS OF MORE THAN 3,750 LBS. LVW AND UP TO 5,750 LBS. LVW AND UP TO 6,000 LBS. GVWR

Pollutant	NMOG	CO	NO_x	PM*	HCHO (formaldehyde)
50,000 mile standard.	0.100	4.4	0.4	.....	0.018
100,000 mile standard.	0.130	5.5	0.5	0.08	0.023

Standards are expressed in grams per mile (gpm).
*Standards for particulates (PM) shall apply only to diesel-fueled vehicles.
In the case of the 50,000 mile standards and the 100,000 mile standards, for purposes of certification, the applicable useful life shall be 50,000 miles or 100,000 miles, respectively.

(c) Exhaust standards for light-duty trucks greater than 6,000 lbs. GVWR

The standards set forth in this subsection shall apply in the case of clean-fuel vehicles which are light-duty trucks of more than 6,000 lbs. gross weight rating (GVWR) and less than or equal to 8,500 lbs. GVWR, beginning with model year 1998. For the air pollutants specified in the following table, the clean-fuel vehicle standards under this section shall provide that vehicle exhaust emissions of vehicles within the test weight categories specified in the following table shall not exceed the levels specified in such table.

CLEAN FUEL VEHICLE EMISSION STANDARDS FOR LIGHT DUTY TRUCKS GREATER THAN 6,000 LBS. GVWR

Test Weight Category: Up to 3,750 lbs. tw

Pollutant	NMOG	CO	NO_x	PM*	HCHO (formaldehyde)
50,000 mile standard.	0.125	3.4	0.4**	.....	0.015
120,000 mile standard.	0.180	5.0	0.6	0.08	0.022

Test Weight Category: Above 3,750 but not above 5,750 lbs. tw

Pollutant	NMOG	CO	NO_x	PM*	HCHO (formaldehyde)
50,000 mile standard.	0.160	4.4	0.7**	.....	0.018
120,000 mile standard.	0.230	6.4	1.0	0.10	0.027

Test Weight Category: Above 5,750 tw but not above 8,500 lbs. gvwr

Pollutant	NMOG	CO	NO_x	PM*	HCHO (formaldehyde)
50,000 mile standard.	0.195	5.0	1.1**	.....	0.022
120,000 mile standard.	0.280	7.3	1.5	0.12	0.032

Standards are expressed in grams per mile (gpm).
*Standards for particulates (PM) shall apply only to diesel-fueled vehicles.
**Standard not applicable to diesel-fueled vehicles.
For the 50,000 mile standards and the 120,000 mile standards set forth in the table, the applicable useful life for purposes of certification shall be 50,000 miles or 120,000 miles, respectively.

(d) Flexible and dual-fuel vehicles

(1) In general

The Administrator shall establish standards and requirements under this section for the model year 1996 and thereafter for vehicles weighing not more than 8,500 lbs. gvwr which are capable of operating on more than one fuel. Such standards shall require that such vehicles meet the exhaust standards applicable under subsection[2] (a), (b), and (c) for CO, NO_x, and HCHO, and if appropriate, PM for single-fuel vehicles of the same vehicle category and model year.

(2) Exhaust NMOG standard for operation on clean alternative fuel

In addition to standards for the pollutants referred to in paragraph (1), the standards es-

[1] So in original. Probably should be ''subsection''.

[2] So in original. Probably should be ''subsections''.

tablished under paragraph (1) shall require that vehicle exhaust emissions of NMOG not exceed the levels (expressed in grams per mile) specified in the tables below when the vehicle is operated on the clean alternative fuel for which such vehicle is certified:

NMOG STANDARDS FOR FLEXIBLE- AND DUAL-FUELED VEHICLES WHEN OPERATING ON CLEAN ALTERNATIVE FUEL

Light-duty Trucks up to 6,000 lbs. GVWR and Light-duty vehicles

Vehicle Type	Column A (50,000 mi.) Standard (gpm)	Column B (100,000 mi.) Standard (gpm)
Beginning MY 1996:		
LDT's (0–3,750 lbs. LVW) and light-duty vehicles.	0.125	0.156
LDT's (3,751–5,750 lbs. LVW).	0.160	0.20
Beginning MY 2001:		
LDT's (0–3,750 lbs. LVW) and light-duty vehicles.	0.075	0.090
LDT's (3,751–5,750 lbs. LVW).	0.100	0.130

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 50,000 miles.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 100,000 miles.

Light-duty Trucks More than 6,000 lbs. GVWR

Vehicle Type	Column A (50,000 mi.) Standard	Column B (120,000 mi.) Standard
Beginning MY 1998:		
LDT's (0–3,750 lbs. TW)	0.125	0.180
LDT's (3,751–5,750 lbs. TW)	0.160	0.230
LDT's (above 5,750 lbs. TW)	0.195	0.280

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 50,000 miles.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 120,000 miles.

(3) NMOG standard for operation on conventional fuel

In addition to the standards referred to in paragraph (1), the standards established under paragraph (1) shall require that vehicle exhaust emissions of NMOG not exceed the levels (expressed in grams per mile) specified in the tables below:

NMOG STANDARDS FOR FLEXIBLE- AND DUAL-FUELED VEHICLES WHEN OPERATING ON CONVENTIONAL FUEL

Light-duty Trucks of up to 6,000 lbs. GVWR and Light-duty vehicles

Vehicle Type	Column A (50,000 mi.) Standard (gpm)	Column B (100,000 mi.) Standard (gpm)
Beginning MY 1996:		
LDT's (0–3,750 lbs. LVW) and light-duty vehicles.	0.25	0.31
LDT's (3,751–5,750 lbs. LVW).	0.32	0.40

NMOG STANDARDS FOR FLEXIBLE- AND DUAL-FUELED VEHICLES WHEN OPERATING ON CONVENTIONAL FUEL

Light-duty Trucks of up to 6,000 lbs. GVWR and Light-duty vehicles

Vehicle Type	Column A (50,000 mi.) Standard (gpm)	Column B (100,000 mi.) Standard (gpm)
Beginning MY 2001:		
LDT's (0–3,750 lbs. LVW) and light-duty vehicles.	0.125	0.156
LDT's (3,751–5,750 lbs. LVW).	0.160	0.200

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 50,000 miles.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 100,000 miles.

Light-duty Trucks of up to 6,000 lbs. GVWR

Vehicle Type	Column A (50,000 mi.) Standard	Column B (120,000 mi.) Standard
Beginning MY 1998:		
LDT's (0–3,750 lbs. TW)	0.25	0.36
LDT's (3,751–5,750 lbs. TW)	0.32	0.46
LDT's (above 5,750 lbs. TW)	0.39	0.56

For standards under column A, for purposes of certification under section 7525 of this title, the applicable useful life shall be 50,000 miles.

For standards under column B, for purposes of certification under section 7525 of this title, the applicable useful life shall be 120,000 miles.

(e) Replacement by CARB standards

(1) Single set of CARB standards

If the State of California promulgates regulations establishing and implementing a single set of standards applicable in California pursuant to a waiver approved under section 7543 of this title to any category of vehicles referred to in subsection (a), (b), (c), or (d) of this section and such set of standards is, in the aggregate, at least as protective of public health and welfare as the otherwise applicable standards set forth in section 7582 of this title and subsection (a), (b), (c), or (d) of this section, such set of California standards shall apply to clean-fuel vehicles in such category in lieu of the standards otherwise applicable under section 7582 of this title and subsection (a), (b), (c), or (d) of this section, as the case may be.

(2) Multiple sets of CARB standards

If the State of California promulgates regulations establishing and implementing several different sets of standards applicable in California pursuant to a waiver approved under section 7543 of this title to any category of vehicles referred to in subsection (a), (b), (c), or (d) of this section and each of such sets of California standards is, in the aggregate, at least as protective of public health and welfare as the otherwise applicable standards set forth in section 7582 of this title and subsection (a), (b), (c), or (d) of this section, such standards shall be treated as ''qualifying California standards'' for purposes of this paragraph. Where more than one set of qualifying stand-

ards are established and administered by the State of California, the least stringent set of qualifying California standards shall apply to the clean-fuel vehicles concerned in lieu of the standards otherwise applicable to such vehicles under section 7582 of this title and this section.

(f) Less stringent CARB standards

If the Low-Emission Vehicle and Clean Fuels Regulations of the California Air Resources Board applicable to any category of vehicles referred to in subsection (a), (b), (c), or (d) of this section are modified after November 15, 1990, to provide an emissions standard which is less stringent than the otherwise applicable standard set forth in subsection (a), (b), (c), or (d), or if any effective date contained in such regulations is delayed, such modified standards or such delay (or both, as the case may be) shall apply, for an interim period, in lieu of the standard or effective date otherwise applicable under subsection (a), (b), (c), or (d) to any vehicles covered by such modified standard or delayed effective date. The interim period shall be a period of not more than 2 model years from the effective date otherwise applicable under subsection (a), (b), (c), or (d). After such interim period, the otherwise applicable standard set forth in subsection (a), (b), (c), or (d) shall take effect with respect to such vehicles (unless subsequently replaced under subsection (e)).

(g) Not applicable to heavy-duty vehicles

Notwithstanding any provision of the Low-Emission Vehicle and Clean Fuels Regulations of the California Air Resources Board nothing in this section shall apply to heavy-duty engines in vehicles of more than 8,500 lbs. GVWR.

(July 14, 1955, ch. 360, title II, § 243, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2514.)

§ 7584. Administration and enforcement as per California standards

Where the numerical clean-fuel vehicle standards applicable under this part to vehicles of not more than 8,500 lbs. GVWR are the same as numerical emission standards applicable in California under the Low-Emission Vehicle and Clean Fuels Regulations of the California Air Resources Board (''CARB''), such standards shall be administered and enforced by the Administrator—

(1) in the same manner and with the same flexibility as the State of California administers and enforces corresponding standards applicable under the Low-Emission Vehicle and Clean Fuels Regulations of the California Air Resources Board (''CARB''); and

(2) subject to the same requirements, and utilizing the same interpretations and policy judgments, as are applicable in the case of such CARB standards, including, but not limited to, requirements regarding certification, production-line testing, and in-use compliance,

unless the Administrator determines (in promulgating the rules establishing the clean fuel vehicle program under this section) that any such administration and enforcement would not meet the criteria for a waiver under section 7543 of this title. Nothing in this section shall apply in the case of standards under section 7585 of this title for heavy-duty vehicles.

(July 14, 1955, ch. 360, title II, § 244, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2519.)

§ 7585. Standards for heavy-duty clean-fuel vehicles (GVWR above 8,500 up to 26,000 lbs.)

(a) Model years after 1997; combined NO_x and NMHC standard

For classes or categories of heavy-duty vehicles or engines manufactured for the model year 1998 or thereafter and having a GVWR greater than 8,500 lbs. and up to 26,000 lbs. GVWR, the standards under this part for clean-fuel vehicles shall require that combined emissions of oxides of nitrogen (NO_x) and nonmethane hydrocarbons (NMHC) shall not exceed 3.15 grams per brake horsepower hour (equivalent to 50 percent of the combined emission standards applicable under section 7521 of this title for such air pollutants in the case of a conventional model year 1994 heavy-duty diesel-fueled vehicle or engine). No standard shall be promulgated as provided in this section for any heavy-duty vehicle of more than 26,000 lbs. GVWR.

(b) Revised standards that are less stringent

(1) The Administrator may promulgate a revised less stringent standard for the vehicles or engines referred to in subsection (a) if the Administrator determines that the 50 percent reduction required under subsection (a) is not technologically feasible for clean diesel-fueled vehicles and engines, taking into account durability, costs, lead time, safety, and other relevant factors. To provide adequate lead time the Administrator shall make a determination with regard to the technological feasibility of such 50 percent reduction before December 31, 1993.

(2) Any person may at any time petition the Administrator to make a determination under paragraph (1). The Administrator shall act on such a petition within 6 months after the petition is filed.

(3) Any revised less stringent standards promulgated as provided in this subsection shall require at least a 30 percent reduction in lieu of the 50 percent reduction referred to in paragraph (1).

(July 14, 1955, ch. 360, title II, § 245, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2519.)

§ 7586. Centrally fueled fleets

(a) Fleet program required for certain nonattainment areas

(1) SIP revision

Each State in which there is located all or part of a covered area (as defined in paragraph (2)) shall submit, within 42 months after November 15, 1990, a State implementation plan revision under section 7410 of this title and part D of subchapter I to establish a clean-fuel vehicle program for fleets under this section.

(2) Covered areas

For purposes of this subsection, each of the following shall be a ''covered area'':

(A) Ozone nonattainment areas

Any ozone nonattainment area with a 1980 population of 250,000 or more classified under subpart 2 of part D of subchapter I of this chapter as Serious, Severe, or Extreme based on data for the calendar years 1987, 1988, and 1989. In determining the ozone nonattainment areas to be treated as covered areas pursuant to this subparagraph, the Administrator shall use the most recent interpretation methodology issued by the Administrator prior to November 15, 1990.

(B) Carbon monoxide nonattainment areas

Any carbon monoxide nonattainment area with a 1980 population of 250,000 or more and a carbon monoxide design value at or above 16.0 parts per million based on data for calendar years 1988 and 1989 (as calculated according to the most recent interpretation methodology issued prior to November 15, 1990, by the United States Environmental Protection Agency), excluding those carbon monoxide nonattainment areas in which mobile sources do not contribute significantly to carbon monoxide exceedances.

(3) Plan revisions for reclassified areas

In the case of ozone nonattainment areas reclassified as Serious, Severe, or Extreme under part D of subchapter I with a 1980 population of 250,000 or more, the State shall submit a plan revision meeting the requirements of this subsection within 1 year after reclassification. Such plan revision shall implement the requirements applicable under this subsection at the time of reclassification and thereafter, except that the Administrator may adjust for a limited period the deadlines for compliance where compliance with such deadlines would be infeasible.

(4) Consultation; consideration of factors

Each State required to submit an implementation plan revision under this subsection shall develop such revision in consultation with fleet operators, vehicle manufacturers, fuel producers and distributors, motor vehicle fuel, and other interested parties, taking into consideration operational range, specialty uses, vehicle and fuel availability, costs, safety, resale values of vehicles and equipment and other relevant factors.

(b) Phase-in of requirements

The plan revision required under this section shall contain provisions requiring that at least a specified percentage of all new covered fleet vehicles in model year 1998 and thereafter purchased by each covered fleet operator in each covered area shall be clean-fuel vehicles and shall use clean alternative fuels when operating in the covered area. For the applicable model years (MY) specified in the following table and thereafter, the specified percentage shall be as provided in the table for the vehicle types set forth in the table:

CLEAN FUEL VEHICLE PHASE-IN REQUIREMENTS FOR FLEETS

Vehicle Type	MY1998	MY1999	MY2000
Light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles	30%	50%	70%
Heavy-duty trucks above 8,500 lbs. GVWR	50%	50%	50%

The term MY refers to model year.

(c) Accelerated standard for light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles

Notwithstanding the model years for which clean-fuel vehicle standards are applicable as provided in section 7583 of this title, for purposes of this section, light duty[1] trucks of up to 6,000 lbs. GVWR and light-duty vehicles manufactured in model years 1998 through model year 2000 shall be treated as clean-fuel vehicles only if such vehicles comply with the standards applicable under section 7583 of this title for vehicles in the same class for the model year 2001. The requirements of subsection (b) shall take effect on the earlier of the following:

(1) The first model year after model year 1997 in which new light-duty trucks up to 6,000 lbs. GVWR and light-duty vehicles which comply with the model year 2001 standards under section 7583 of this title are offered for sale in California.

(2) Model year 2001.

Whenever the effective date of subsection (b) is delayed pursuant to paragraph (1) of this subsection, the phase-in schedule under subsection (b) shall be modified to commence with the model year referred to in paragraph (1) in lieu of model year 1998.

(d) Choice of vehicles and fuel

The plan revision under this subsection shall provide that the choice of clean-fuel vehicles and clean alternative fuels shall be made by the covered fleet operator subject to the requirements of this subsection.

(e) Availability of clean alternative fuel

The plan revision shall require fuel providers to make clean alternative fuel available to covered fleet operators at locations at which covered fleet vehicles are centrally fueled.

(f) Credits

(1) Issuance of credits

The State plan revision required under this section shall provide for the issuance by the State of appropriate credits to a fleet operator for any of the following (or any combination thereof):

(A) The purchase of more clean-fuel vehicles than required under this section.

(B) The purchase of clean fuel[2] vehicles which meet more stringent standards established by the Administrator pursuant to paragraph (4).

(C) The purchase of vehicles in categories which are not covered by this section but which meet standards established for such vehicles under paragraph (4).

[1] So in original. Probably should be ''light-duty''.

[2] So in original. Probably should be ''clean-fuel''.

(2) Use of credits; limitations based on weight classes

(A) Use of credits

Credits under this subsection may be used by the person holding such credits to demonstrate compliance with this section or may be traded or sold for use by any other person to demonstrate compliance with other requirements applicable under this section in the same nonattainment area. Credits obtained at any time may be held or banked for use at any later time, and when so used, such credits shall maintain the same value as if used at an earlier date.

(B) Limitations based on weight classes

Credits issued with respect to the purchase of vehicles of up to 8,500 lbs. GVWR may not be used to demonstrate compliance by any person with the requirements applicable under this subsection to vehicles of more than 8,500 lbs. GVWR. Credits issued with respect to the purchase of vehicles of more than 8,500 lbs. GVWR may not be used to demonstrate compliance by any person with the requirements applicable under this subsection to vehicles weighing up to 8,500 lbs. GVWR.

(C) Weighting

Credits issued for purchase of a clean fuel[2] vehicle under this subsection shall be adjusted with appropriate weighting to reflect the level of emission reduction achieved by the vehicle.

(3) Regulations and administration

Within 12 months after November 15, 1990, the Administrator shall promulgate regulations for such credit program. The State shall administer the credit program established under this subsection.

(4) Standards for issuing credits for cleaner vehicles

Solely for purposes of issuing credits under paragraph (1)(B), the Administrator shall establish under this paragraph standards for Ultra-Low Emission Vehicles (''ULEV''s) and Zero Emissions Vehicles (''ZEV''s) which shall be more stringent than those otherwise applicable to clean-fuel vehicles under this part. The Administrator shall certify clean fuel[2] vehicles as complying with such more stringent standards, and administer and enforce such more stringent standards, in the same manner as in the case of the otherwise applicable clean-fuel vehicle standards established under this section. The standards established by the Administrator under this paragraph for vehicles under 8,500 lbs. GVWR or greater shall conform as closely as possible to standards which are established by the State of California for ULEV and ZEV vehicles in the same class. For vehicles of 8,500 lbs. GVWR or more, the Administrator shall promulgate comparable standards for purposes of this subsection.

(5) Early fleet credits

The State plan revision shall provide credits under this subsection to fleet operators that purchase vehicles certified to meet clean-fuel vehicle standards under this part during any period after approval of the plan revision and prior to the effective date of the fleet program under this section.

(g) Availability to public

At any facility owned or operated by a department, agency, or instrumentality of the United States where vehicles subject to this subsection are supplied with clean alternative fuel, such fuel shall be offered for sale to the public for use in other vehicles during reasonable business times and subject to national security concerns, unless such fuel is commercially available for vehicles in the vicinity of such Federal facilities.

(h) Transportation control measures

The Administrator shall by rule, within 1 year after November 15, 1990, ensure that certain transportation control measures including time-of-day or day-of-week restrictions, and other similar measures that restrict vehicle usage, do not apply to any clean-fuel vehicle that meets the requirements of this section. This subsection shall apply notwithstanding subchapter I.

(July 14, 1955, ch. 360, title II, §246, as added Pub. L. 101–549, title II, §229(a), Nov. 15, 1990, 104 Stat. 2520.)

§ 7587. Vehicle conversions

(a) Conversion of existing and new conventional vehicles to clean-fuel vehicles

The requirements of section 7586 of this title may be met through the conversion of existing or new gasoline or diesel-powered vehicles to clean-fuel vehicles which comply with the applicable requirements of that section. For purposes of such provisions the conversion of a vehicle to clean fuel[1] vehicle shall be treated as the purchase of a clean fuel[1] vehicle. Nothing in this part shall be construed to provide that any covered fleet operator subject to fleet vehicle purchase requirements under section 7586 of this title shall be required to convert existing or new gasoline or diesel-powered vehicles to clean-fuel vehicles or to purchase converted vehicles.

(b) Regulations

The Administrator shall, within 24 months after November 15, 1990, consistent with the requirements of this subchapter applicable to new vehicles, promulgate regulations governing conversions of conventional vehicles to clean-fuel vehicles. Such regulations shall establish criteria for such conversions which will ensure that a converted vehicle will comply with the standards applicable under this part to clean-fuel vehicles. Such regulations shall provide for the application to such conversions of the same provisions of this subchapter (including provisions relating to administration enforcement) as are applicable to standards under section[2] 7582, 7583, 7584, and 7585 of this title, except that in the case of conversions the Administrator may modify the applicable regulations implementing

[1] So in original. Probably should be ''clean-fuel''.
[2] So in original. Probably should be ''sections''.

such provisions as the Administrator deems necessary to implement this part.

(c) Enforcement

Any person who converts conventional vehicles to clean fuel[1] vehicles pursuant to subsection (b), shall be considered a manufacturer for purposes of sections 7525 and 7541 of this title and related enforcement provisions. Nothing in the preceding sentence shall require a person who performs such conversions to warrant any part or operation of a vehicle other than as required under this part. Nothing in this paragraph shall limit the applicability of any other warranty to unrelated parts or operations.

(d) Tampering

The conversion from a vehicle capable of operating on gasoline or diesel fuel only to a clean-fuel vehicle shall not be considered a violation of section 7522(a)(3) of this title if such conversion complies with the regulations promulgated under subsection (b).

(e) Safety

The Secretary of Transportation shall, if necessary, promulgate rules under applicable motor vehicle laws regarding the safety of vehicles converted from existing and new vehicles to clean-fuel vehicles.

(July 14, 1955, ch. 360, title II, § 247, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2523.)

§ 7588. Federal agency fleets

(a) Additional provisions applicable

The provisions of this section shall apply, in addition to the other provisions of this part, in the case of covered fleet vehicles owned or operated by an agency, department, or instrumentality of the United States, except as otherwise provided in subsection (e).

(b) Cost of vehicles to Federal agency

Notwithstanding the provisions of sections 601–611 of title 40, the Administrator of General Services shall not include the incremental costs of clean-fuel vehicles in the amount to be reimbursed by Federal agencies if the Administrator of General Services determines that appropriations provided pursuant to this paragraph are sufficient to provide for the incremental cost of such vehicles over the cost of comparable conventional vehicles.

(c) Limitations on appropriations

Funds appropriated pursuant to the authorization under this paragraph shall be applicable only—

(1) to the portion of the cost of acquisition, maintenance and operation of vehicles acquired under this subparagraph which exceeds the cost of acquisition, maintenance and operation of comparable conventional vehicles;

(2) to the portion of the costs of fuel storage and dispensing equipment attributable to such vehicles which exceeds the costs for such purposes required for conventional vehicles; and

(3) to the portion of the costs of acquisition of clean-fuel vehicles which represents a reduction in revenue from the disposal of such vehicles as compared to revenue resulting from the disposal of comparable conventional vehicles.

(d) Vehicle costs

The incremental cost of vehicles acquired under this part over the cost of comparable conventional vehicles shall not be applied to any calculation with respect to a limitation under law on the maximum cost of individual vehicles which may be required by the United States.

(e) Exemptions

The requirements of this part shall not apply to vehicles with respect to which the Secretary of Defense has certified to the Administrator that an exemption is needed based on national security consideration.

(f) Acquisition requirement

Federal agencies, to the extent practicable, shall obtain clean-fuel vehicles from original equipment manufacturers.

(g) Authorization of appropriations

There are authorized to be appropriated such sums as may be required to carry out the provisions of this section: *Provided*, That such sums as are appropriated for the Administrator of General Services pursuant to the authorization under this section shall be added to the General Supply Fund established in section 321 of title 40.

(July 14, 1955, ch. 360, title II, § 248, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2524.)

CODIFICATION

In subsec. (b), ''sections 601–611 of title 40'' substituted for ''section 211 of the Federal Property and Administrative Services Act of 1949'', and, in subsec. (g), ''the General Supply Fund established in section 321 of title 40'' substituted for ''the General Supply Fund established in section 109 of the Federal Property and Administrative Services Act of 1949'', on authority of Pub. L. 107–217, § 5(c), Aug. 21, 2002, 116 Stat. 1303, the first section of which enacted Title 40, Public Buildings, Property, and Works.

ABOLITION OF GENERAL SUPPLY FUND

The General Supply Fund, referred to in subsec. (g), was abolished and its capital assets and balances transferred to the Acquisition Services Fund by section 3(a)–(c) of Pub. L. 109–313, set out as an Acquisition Services Fund note under section 321 of Title 40, Public Buildings, Property, and Works.

§ 7589. California pilot test program

(a) Establishment

The Administrator shall establish a pilot program in the State of California to demonstrate the effectiveness of clean-fuel vehicles in controlling air pollution in ozone nonattainment areas.

(b) Applicability

The provisions of this section shall only apply to light-duty trucks and light-duty vehicles, and such provisions shall apply only in the State of California, except as provided in subsection (f).

(c) Program requirements

Not later than 24 months after November 15, 1990, the Administrator shall promulgate regulations establishing requirements under this sec-

tion applicable in the State of California. The regulations shall provide the following:

(1) Clean-fuel vehicles

Clean-fuel vehicles shall be produced, sold, and distributed (in accordance with normal business practices and applicable franchise agreements) to ultimate purchasers in California (including owners of covered fleets referred to in section 7586 of this title) in numbers that meet or exceed the following schedule:

Model Years	Number of Clean-Fuel Vehicles
1996, 1997, 1998	150,000 vehicles
1999 and thereafter	300,000 vehicles

(2) Clean alternative fuels

(A) Within 2 years after November 15, 1990, the State of California shall submit a revision of the applicable implementation plan under part D of subchapter I and section 7410 of this title containing a clean fuel plan that requires that clean alternative fuels on which the clean-fuel vehicles required under this paragraph can operate shall be produced and distributed by fuel suppliers and made available in California. At a minimum, sufficient clean alternative fuels shall be produced, distributed and made available to assure that all clean-fuel vehicles required under this section can operate, to the maximum extent practicable, exclusively on such fuels in California. The State shall require that clean alternative fuels be made available and offered for sale at an adequate number of locations with sufficient geographic distribution to ensure convenient refueling with clean alternative fuels, considering the number of, and type of, such vehicles sold and the geographic distribution of such vehicles within the State. The State shall determine the clean alternative fuels to be produced, distributed, and made available based on motor vehicle manufacturers' projections of future sales of such vehicles and consultations with the affected local governments and fuel suppliers.

(B) The State may by regulation grant persons subject to the requirements prescribed under this paragraph an appropriate amount of credits for exceeding such requirements, and any person granted credits may transfer some or all of the credits for use by one or more persons in demonstrating compliance with such requirements. The State may make the credits available for use after consideration of enforceability, environmental, and economic factors and upon such terms and conditions as the State finds appropriate.

(C) The State may also by regulation establish specifications for any clean alternative fuel produced and made available under this paragraph as the State finds necessary to reduce or eliminate an unreasonable risk to public health, welfare, or safety associated with its use or to ensure acceptable vehicle maintenance and performance characteristics.

(D) If a retail gasoline dispensing facility would have to remove or replace one or more motor vehicle fuel underground storage tanks and accompanying piping in order to comply with the provisions of this section, and it had removed and replaced such tank or tanks and accompanying piping in order to comply with subtitle I of the Solid Waste Disposal Act [42 U.S.C. 6991 et seq.] prior to November 15, 1990, it shall not be required to comply with this subsection until a period of 7 years has passed from the date of the removal and replacement of such tank or tanks.

(E) Nothing in this section authorizes any State other than California to adopt provisions regarding clean alternative fuels.

(F) If the State of California fails to adopt a clean fuel program that meets the requirements of this paragraph, the Administrator shall, within 4 years after November 15, 1990, establish a clean fuel program for the State of California under this paragraph and section 7410(c) of this title that meets the requirements of this paragraph.

(d) Credits for motor vehicle manufacturers

(1) The Administrator may (by regulation) grant a motor vehicle manufacturer an appropriate amount of credits toward fulfillment of such manufacturer's share of the requirements of subsection (c)(1) of this section for any of the following (or any combination thereof):

(A) The sale of more clean-fuel vehicles than required under subsection (c)(1) of this section.

(B) The sale of clean fuel[1] vehicles which meet standards established by the Administrator as provided in paragraph (3) which are more stringent than the clean-fuel vehicle standards otherwise applicable to such clean-fuel vehicle. A manufacturer granted credits under this paragraph may transfer some or all of the credits for use by one or more other manufacturers in demonstrating compliance with the requirements prescribed under this paragraph. The Administrator may make the credits available for use after consideration of enforceability, environmental, and economic factors and upon such terms and conditions as he finds appropriate. The Administrator shall grant credits in accordance with this paragraph, notwithstanding any requirements of State law or any credits granted with respect to the same vehicles under any State law, rule, or regulation.

(2) REGULATIONS AND ADMINISTRATION.—The Administrator shall administer the credit program established under this subsection. Within 12 months after November 15, 1990, the Administrator shall promulgate regulations for such credit program.

(3) STANDARDS FOR ISSUING CREDITS FOR CLEANER VEHICLES.—The more stringent standards and other requirements (including requirements relating to the weighting of credits) established by the Administrator for purposes of the credit program under 7585(e)[2] of this title (relating to credits for clean fuel[1] vehicles in the fleets program) shall also apply for purposes of the credit program under this paragraph.

(e) Program evaluation

(1) Not later than June 30, 1994 and again in connection with the report under paragraph (2),

[1] So in original. Probably should be "clean-fuel".

[2] So in original. Probably should be "section 7586(f)".

the Administrator shall provide a report to the Congress on the status of the California Air Resources Board Low-Emissions Vehicles and Clean Fuels Program. Such report shall examine the capability, from a technological standpoint, of motor vehicle manufacturers and motor vehicle fuel suppliers to comply with the requirements of such program and with the requirements of the California Pilot Program under this section.

(2) Not later than June 30, 1998, the Administrator shall complete and submit a report to Congress on the effectiveness of the California pilot program under this section. The report shall evaluate the level of emission reductions achieved under the program, the costs of the program, the advantages and disadvantages of extending the program to other nonattainment areas, and desirability of continuing or expanding the program in California.

(3) The program under this section cannot be extended or terminated by the Administrator except by Act of Congress enacted after November 15, 1990. Section 7507 of this title does not apply to the program under this section.

(f) Voluntary opt-in for other States

(1) EPA regulations

Not later than 2 years after November 15, 1990, the Administrator shall promulgate regulations establishing a voluntary opt-in program under this subsection pursuant to which—

(A) clean-fuel vehicles which are required to be produced, sold, and distributed in the State of California under this section, and

(B) clean alternative fuels required to be produced and distributed under this section by fuel suppliers and made available in California[3]

may also be sold and used in other States which submit plan revisions under paragraph (2).

(2) Plan revisions

Any State in which there is located all or part of an ozone nonattainment area classified under subpart[4] D of subchapter I as Serious, Severe, or Extreme may submit a revision of the applicable implementation plan under part D of subchapter I and section 7410 of this title to provide incentives for the sale or use in such an area or State of clean-fuel vehicles which are required to be produced, sold, and distributed in the State of California, and for the use in such an area or State of clean alternative fuels required to be produced and distributed by fuel suppliers and made available in California. Such plan provisions shall not take effect until 1 year after the State has provided notice of such provisions to motor vehicle manufacturers and to fuel suppliers.

(3) Incentives

The incentives referred to in paragraph (2) may include any or all of the following:

(A) A State registration fee on new motor vehicles registered in the State which are not clean-fuel vehicles in the amount of at least 1 percent of the cost of the vehicle. The proceeds of such fee shall be used to provide financial incentives to purchasers of clean-fuel vehicles and to vehicle dealers who sell high volumes or high percentages of clean-fuel vehicles and to defray the administrative costs of the incentive program.

(B) Provisions to exempt clean-fuel vehicles from high occupancy vehicle or trip reduction requirements.

(C) Provisions to provide preference in the use of existing parking spaces for clean-fuel vehicles.

The incentives under this paragraph shall not apply in the case of covered fleet vehicles.

(4) No sales or production mandate

The regulations and plan revisions under paragraphs (1) and (2) shall not include any production or sales mandate for clean-fuel vehicles or clean alternative fuels. Such regulations and plan revisions shall also provide that vehicle manufacturers and fuel suppliers may not be subject to penalties or sanctions for failing to produce or sell clean-fuel vehicles or clean alternative fuels.

(July 14, 1955, ch. 360, title II, § 249, as added Pub. L. 101–549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2525.)

REFERENCES IN TEXT

The Solid Waste Disposal Act, referred to in subsec. (c)(2)(D), is title II of Pub. L. 89–272, Oct. 20, 1965, 79 Stat. 997, as amended generally by Pub. L. 94–580, § 2, Oct. 21, 1976, 90 Stat. 2795. Subtitle I of the Act is classified generally to subchapter IX (§ 6991 et seq.) of chapter 82 of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6901 of this title and Tables.

November 15, 1990, referred to in subsec. (e)(3), was in the original ''the date of the Clean Air Act Amendments of 1990'', which was translated as meaning the date of enactment of Pub. L. 101–549, which enacted this section, to reflect the probable intent of Congress.

§ 7590. General provisions

(a) State refueling facilities

If any State adopts enforceable provisions in an implementation plan applicable to a nonattainment area which provides that existing State refueling facilities will be made available to the public for the purchase of clean alternative fuels or that State-operated refueling facilities for such fuels will be constructed and operated by the State and made available to the public at reasonable times, taking into consideration safety, costs, and other relevant factors, in approving such plan under section 7410 of this title and part D,[1] the Administrator may credit a State with the emission reductions for purposes of part D[1] attributable to such actions.

(b) No production mandate

The Administrator shall have no authority under this part to mandate the production of clean-fuel vehicles except as provided in the California pilot test program or to specify as applicable the models, lines, or types of, or mar-

[3] So in original. Probably should be followed by a comma.

[4] So in original. Probably should be ''part''.

[1] So in original. Probably should refer to part D of subchapter I.

keting or price practices, policies, or strategies for, vehicles subject to this part. Nothing in this part shall be construed to give the Administrator authority to mandate marketing or pricing practices, policies, or strategies for fuels.

(c) Tank and fuel system safety

The Secretary of Transportation shall, in accordance with chapter 301 of title 49, promulgate applicable regulations regarding the safety and use of fuel storage cylinders and fuel systems, including appropriate testing and retesting, in conversions of motor vehicles.

(d) Consultation with Department of Energy and Department of Transportation

The Administrator shall coordinate with the Secretaries of the Department of Energy and the Department of Transportation in carrying out the Administrator's duties under this part.

(July 14, 1955, ch. 360, title II, §250, as added Pub. L. 101–549, title II, §229(a), Nov. 15, 1990, 104 Stat. 2528.)

CODIFICATION

In subsec. (c), ''chapter 301 of title 49'' substituted for ''the National Motor Vehicle Traffic Safety Act of 1966 [15 U.S.C. 1381 et seq.]'', meaning ''the National Traffic and Motor Vehicle Safety Act of 1966 [15 U.S.C. 1381 et seq.]'', on authority of Pub. L. 103–272, §6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

SUBCHAPTER III—GENERAL PROVISIONS

§ 7601. Administration

(a) Regulations; delegation of powers and duties; regional officers and employees

(1) The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter. The Administrator may delegate to any officer or employee of the Environmental Protection Agency such of his powers and duties under this chapter, except the making of regulations subject to section 7607(d) of this title, as he may deem necessary or expedient.

(2) Not later than one year after August 7, 1977, the Administrator shall promulgate regulations establishing general applicable procedures and policies for regional officers and employees (including the Regional Administrator) to follow in carrying out a delegation under paragraph (1), if any. Such regulations shall be designed—

(A) to assure fairness and uniformity in the criteria, procedures, and policies applied by the various regions in implementing and enforcing the chapter;

(B) to assure at least an adequate quality audit of each State's performance and adherence to the requirements of this chapter in implementing and enforcing the chapter, particularly in the review of new sources and in enforcement of the chapter; and

(C) to provide a mechanism for identifying and standardizing inconsistent or varying criteria, procedures, and policies being employed by such officers and employees in implementing and enforcing the chapter.

(b) Detail of Environmental Protection Agency personnel to air pollution control agencies

Upon the request of an air pollution control agency, personnel of the Environmental Protection Agency may be detailed to such agency for the purpose of carrying out the provisions of this chapter.

(c) Payments under grants; installments; advances or reimbursements

Payments under grants made under this chapter may be made in installments, and in advance or by way of reimbursement, as may be determined by the Administrator.

(d) Tribal authority

(1) Subject to the provisions of paragraph (2), the Administrator—

(A) is authorized to treat Indian tribes as States under this chapter, except for purposes of the requirement that makes available for application by each State no less than one-half of 1 percent of annual appropriations under section 7405 of this title; and

(B) may provide any such Indian tribe grant and contract assistance to carry out functions provided by this chapter.

(2) The Administrator shall promulgate regulations within 18 months after November 15, 1990, specifying those provisions of this chapter for which it is appropriate to treat Indian tribes as States. Such treatment shall be authorized only if—

(A) the Indian tribe has a governing body carrying out substantial governmental duties and powers;

(B) the functions to be exercised by the Indian tribe pertain to the management and protection of air resources within the exterior boundaries of the reservation or other areas within the tribe's jurisdiction; and

(C) the Indian tribe is reasonably expected to be capable, in the judgment of the Administrator, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of this chapter and all applicable regulations.

(3) The Administrator may promulgate regulations which establish the elements of tribal implementation plans and procedures for approval or disapproval of tribal implementation plans and portions thereof.

(4) In any case in which the Administrator determines that the treatment of Indian tribes as identical to States is inappropriate or administratively infeasible, the Administrator may provide, by regulation, other means by which the Administrator will directly administer such provisions so as to achieve the appropriate purpose.

(5) Until such time as the Administrator promulgates regulations pursuant to this subsection, the Administrator may continue to provide financial assistance to eligible Indian tribes under section 7405 of this title.

(July 14, 1955, ch. 360, title III, §301, formerly §8, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 400, renumbered Pub. L. 89–272, title I, §101(4), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 504; Pub. L. 91–604, §§3(b)(2), 15(c)(2), Dec. 31, 1970, 84 Stat. 1677, 1713; Pub. L. 95–95, title III, §305(e), Aug. 7, 1977, 91 Stat. 776; Pub. L. 101–549, title I, §§107(d), 108(i), Nov. 15, 1990, 104 Stat. 2464, 2467.)

CODIFICATION

Section was formerly classified to section 1857g of this title.

AMENDMENTS

1990—Subsec. (a)(1). Pub. L. 101–549, § 108(i), inserted ''subject to section 7607(d) of this title'' after ''regulations''.

Subsec. (d). Pub. L. 101–549, § 107(d), added subsec. (d).

1977—Subsec. (a). Pub. L. 95–95 designated existing provisions as par. (1) and added par. (2).

1970—Subsec. (a). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary'' and ''Environmental Protection Agency'' for ''Department of Health, Education, and Welfare''.

Subsec. (b). Pub. L. 91–604, § 3(b)(2), substituted ''Environmental Protection Agency'' for ''Public Health Service'' and struck out provisions covering the payment of salaries and allowances.

Subsec. (c). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary''.

1967—Pub. L. 90–148 reenacted section without change.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

DISADVANTAGED BUSINESS CONCERNS; USE OF QUOTAS PROHIBITED

Pub. L. 101–549, title X, Nov. 15, 1990, 104 Stat. 2708, provided that:

''SEC. 1001. DISADVANTAGED BUSINESS CONCERNS.

''(a) IN GENERAL.—In providing for any research relating to the requirements of the amendments made by the Clean Air Act Amendments of 1990 [Pub. L. 101–549, see Tables for classification] which uses funds of the Environmental Protection Agency, the Administrator of the Environmental Protection Agency shall, to the extent practicable, require that not less than 10 percent of total Federal funding for such research will be made available to disadvantaged business concerns.

''(b) DEFINITION.—

''(1)(A) For purposes of subsection (a), the term 'disadvantaged business concern' means a concern—

''(i) which is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of a publicly traded company, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

''(ii) the management and daily business operations of which are controlled by such individuals.

''(B)(i) A for-profit business concern is presumed to be a disadvantaged business concern for purposes of subsection (a) if it is at least 51 percent owned by, or in the case of a concern which is a publicly traded company at least 51 percent of the stock of the company is owned by, one or more individuals who are members of the following groups:

''(I) Black Americans.

''(II) Hispanic Americans.

''(III) Native Americans.

''(IV) Asian Americans.

''(V) Women.

''(VI) Disabled Americans.

''(ii) The presumption established by clause (i) may be rebutted with respect to a particular business concern if it is reasonably established that the individual or individuals referred to in that clause with respect to that business concern are not experiencing impediments to establishing or developing such concern as a result of the individual's identification as a member of a group specified in that clause.

''(C) The following institutions are presumed to be disadvantaged business concerns for purposes of subsection (a):

''(i) Historically black colleges and universities, and colleges and universities having a student body in which 40 percent of the students are Hispanic.

''(ii) Minority institutions (as that term is defined by the Secretary of Education pursuant to the General Education Provision Act (20 U.S.C. 1221 et seq.)).

''(iii) Private and voluntary organizations controlled by individuals who are socially and economically disadvantaged.

''(D) A joint venture may be considered to be a disadvantaged business concern under subsection (a), notwithstanding the size of such joint venture, if—

''(i) a party to the joint venture is a disadvantaged business concern; and

''(ii) that party owns at least 51 percent of the joint venture.

A person who is not an economically disadvantaged individual or a disadvantaged business concern, as a party to a joint venture, may not be a party to more than 2 awarded contracts in a fiscal year solely by reason of this subparagraph.

''(E) Nothing in this paragraph shall prohibit any member of a racial or ethnic group that is not listed in subparagraph (B)(i) from establishing that they have been impeded in establishing or developing a business concern as a result of racial or ethnic discrimination.

''SEC. 1002. USE OF QUOTAS PROHIBITED.—Nothing in this title shall permit or require the use of quotas or a requirement that has the effect of a quota in determining eligibility under section 1001.''

§ 7602. Definitions

When used in this chapter—

(a) The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(b) The term ''air pollution control agency'' means any of the following:

(1) A single State agency designated by the Governor of that State as the official State air pollution control agency for purposes of this chapter.

(2) An agency established by two or more States and having substantial powers or duties pertaining to the prevention and control of air pollution.

(3) A city, county, or other local government health authority, or, in the case of any city, county, or other local government in which there is an agency other than the health authority charged with responsibility for enforcing ordinances or laws relating to the prevention and control of air pollution, such other agency.

(4) An agency of two or more municipalities located in the same State or in different States and having substantial powers or duties

pertaining to the prevention and control of air pollution.

(5) An agency of an Indian tribe.

(c) The term ''interstate air pollution control agency'' means—

(1) an air pollution control agency established by two or more States, or

(2) an air pollution control agency of two or more municipalities located in different States.

(d) The term ''State'' means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the Northern Mariana Islands.

(e) The term ''person'' includes an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.

(f) The term ''municipality'' means a city, town, borough, county, parish, district, or other public body created by or pursuant to State law.

(g) The term ''air pollutant'' means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term ''air pollutant'' is used.

(h) All language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.

(i) The term ''Federal land manager'' means, with respect to any lands in the United States, the Secretary of the department with authority over such lands.

(j) Except as otherwise expressly provided, the terms ''major stationary source'' and ''major emitting facility'' mean any stationary facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the Administrator).

(k) The terms ''emission limitation'' and ''emission standard'' mean a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this chapter..[1]

[1] So in original.

(*l*) The term ''standard of performance'' means a requirement of continuous emission reduction, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction.

(m) The term ''means of emission limitation'' means a system of continuous emission reduction (including the use of specific technology or fuels with specified pollution characteristics).

(n) The term ''primary standard attainment date'' means the date specified in the applicable implementation plan for the attainment of a national primary ambient air quality standard for any air pollutant.

(*o*) The term ''delayed compliance order'' means an order issued by the State or by the Administrator to an existing stationary source, postponing the date required under an applicable implementation plan for compliance by such source with any requirement of such plan.

(p) The term ''schedule and timetable of compliance'' means a schedule of required measures including an enforceable sequence of actions or operations leading to compliance with an emission limitation, other limitation, prohibition, or standard.

(q) For purposes of this chapter, the term ''applicable implementation plan'' means the portion (or portions) of the implementation plan, or most recent revision thereof, which has been approved under section 7410 of this title, or promulgated under section 7410(c) of this title, or promulgated or approved pursuant to regulations promulgated under section 7601(d) of this title and which implements the relevant requirements of this chapter.

(r) INDIAN TRIBE.—The term ''Indian tribe'' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village, which is Federally recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(s) VOC.—The term ''VOC'' means volatile organic compound, as defined by the Administrator.

(t) PM–10.—The term ''PM–10'' means particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers, as measured by such method as the Administrator may determine.

(u) NAAQS AND CTG.—The term ''NAAQS'' means national ambient air quality standard. The term ''CTG'' means a Control Technique Guideline published by the Administrator under section 7408 of this title.

(v) NO_x.—The term ''NO_x'' means oxides of nitrogen.

(w) CO.—The term ''CO'' means carbon monoxide.

(x) SMALL SOURCE.—The term ''small source'' means a source that emits less than 100 tons of regulated pollutants per year, or any class of persons that the Administrator determines, through regulation, generally lack technical ability or knowledge regarding control of air pollution.

(y) FEDERAL IMPLEMENTATION PLAN.—The term ''Federal implementation plan'' means a plan (or portion thereof) promulgated by the Administrator to fill all or a portion of a gap or

otherwise correct all or a portion of an inadequacy in a State implementation plan, and which includes enforceable emission limitations or other control measures, means or techniques (including economic incentives, such as marketable permits or auctions of emissions allowances), and provides for attainment of the relevant national ambient air quality standard.

(z) STATIONARY SOURCE.—The term ''stationary source'' means generally any source of an air pollutant except those emissions resulting directly from an internal combustion engine for transportation purposes or from a nonroad engine or nonroad vehicle as defined in section 7550 of this title.

(July 14, 1955, ch. 360, title III, § 302, formerly § 9, as added Pub. L. 88–206, § 1, Dec. 17, 1963, 77 Stat. 400, renumbered Pub. L. 89–272, title I, § 101(4), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 504; Pub. L. 91–604, § 15(a)(1), (c)(1), Dec. 31, 1970, 84 Stat. 1710, 1713; Pub. L. 95–95, title II, § 218(c), title III, § 301, Aug. 7, 1977, 91 Stat. 761, 769; Pub. L. 95–190, § 14(a)(76), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title I, §§ 101(d)(4), 107(a), (b), 108(j), 109(b), title III, § 302(e), title VII, § 709, Nov. 15, 1990, 104 Stat. 2409, 2464, 2468, 2470, 2574, 2684.)

CODIFICATION

Section was formerly classified to section 1857h of this title.

PRIOR PROVISIONS

Provisions similar to those in subsecs. (b) and (d) of this section were contained in a section 1857e of this title, act July 14, 1955, ch. 360, § 6, 69 Stat. 323, prior to the general amendment of this chapter by Pub. L. 88–206.

AMENDMENTS

1990—Subsec. (b)(1) to (3). Pub. L. 101–549, § 107(a)(1), (2), struck out ''or'' at end of par. (3) and substituted periods for semicolons at end of pars. (1) to (3).

Subsec. (b)(5). Pub. L. 101–549, § 107(a)(3), added par. (5).

Subsec. (g). Pub. L. 101–549, § 108(j)(2), inserted at end ''Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used.''

Subsec. (h). Pub. L. 101–549, § 109(b), inserted before period at end '', whether caused by transformation, conversion, or combination with other air pollutants''.

Subsec. (k). Pub. L. 101–549, § 303(e), inserted before period at end '', and any design, equipment, work practice or operational standard promulgated under this chapter.''

Subsec. (q). Pub. L. 101–549, § 101(d)(4), added subsec. (q).

Subsec. (r). Pub. L. 101–549, § 107(b), added subsec. (r).

Subsecs. (s) to (y). Pub. L. 101–549, § 108(j)(1), added subsecs. (s) to (y).

Subsec. (z). Pub. L. 101–549, § 709, added subsec. (z).

1977—Subsec. (d). Pub. L. 95–95, § 218(c), inserted ''and includes the Commonwealth of the Northern Mariana Islands'' after ''American Samoa''.

Subsec. (e). Pub. L. 95–190 substituted ''individual, corporation'' for ''individual corporation''.

Pub. L. 95–95, § 301(b), expanded definition of ''person'' to include agencies, departments, and instrumentalities of the United States and officers, agents, and employees thereof.

Subsec. (g). Pub. L. 95–95, § 301(c), expanded definition of ''air pollutant'' so as, expressly, to include physical, chemical, biological, and radioactive substances or matter emitted into or otherwise entering the ambient air.

Subsecs. (i) to (p). Pub. L. 95–95, § 301(a), added subsecs. (i) to (p).

1970—Subsec. (a). Pub. L. 91–604, § 15(c)(1), substituted definition of ''Administrator'' as meaning Administrator of the Environmental Protection Agency for definition of ''Secretary'' as meaning Secretary of Health, Education, and Welfare.

Subsecs. (g), (h). Pub. L. 91–604, § 15(a)(1), added subsec. (g) defining ''air pollutant'', redesignated former subsec. (g) as (h) and substituted references to effects on soil, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate for references to injury to agricultural crops and livestock, and inserted references to effects on economic values and on personal comfort and well being.

1967—Pub. L. 90–148 reenacted section without change.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

§ 7603. Emergency powers

Notwithstanding any other provision of this chapter, the Administrator, upon receipt of evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to public health or welfare, or the environment, may bring suit on behalf of the United States in the appropriate United States district court to immediately restrain any person causing or contributing to the alleged pollution to stop the emission of air pollutants causing or contributing to such pollution or to take such other action as may be necessary. If it is not practicable to assure prompt protection of public health or welfare or the environment by commencement of such a civil action, the Administrator may issue such orders as may be necessary to protect public health or welfare or the environment. Prior to taking any action under this section, the Administrator shall consult with appropriate State and local authorities and attempt to confirm the accuracy of the information on which the action proposed to be taken is based. Any order issued by the Administrator under this section shall be effective upon issuance and shall remain in effect for a period of not more than 60 days, unless the Administrator brings an action pursuant to the first sentence of this section before the expiration of that period. Whenever the Administrator brings such an action within the 60-day period, such order shall remain in effect for an additional 14 days or for such longer period as may be authorized by the court in which such action is brought.

(July 14, 1955, ch. 360, title III, § 303, as added Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1705; amended Pub. L. 95–95, title III, § 302(a), Aug. 7, 1977, 91 Stat. 770; Pub. L. 101–549, title VII, § 704, Nov. 15, 1990, 104 Stat. 2681.)

CODIFICATION

Section was formerly classified to section 1857h–1 of this title.

PRIOR PROVISIONS

A prior section 303 of act July 14, 1955, was renumbered section 310 by Pub. L. 91–604 and is classified to section 7610 of this title.

AMENDMENTS

1990—Pub. L. 101–549, § 704(2)–(5), struck out subsec. (a) designation before ''Notwithstanding any other'', struck out subsec. (b) which related to violation of or failure or refusal to comply with subsec. (a) orders, and substituted new provisions for provisions following first sentence which read as follows: ''If it is not practicable to assure prompt protection of the health of persons solely by commencement of such a civil action, the Administrator may issue such orders as may be necessary to protect the health of persons who are, or may be, affected by such pollution source (or sources). Prior to taking any action under this section, the Administrator shall consult with the State and local authorities in order to confirm the correctness of the information on which the action proposed to be taken is based and to ascertain the action which such authorities are, or will be, taking. Such order shall be effective for a period of not more than twenty-four hours unless the Administrator brings an action under the first sentence of this subsection before the expiration of such period. Whenever the Administrator brings such an action within such period, such order shall be effective for a period of forty-eight hours or such longer period as may be authorized by the court pending litigation or thereafter.''

Pub. L. 101–549, § 704(1), which directed that ''public health or welfare, or the environment'' be substituted for ''the health of persons and that appropriate State or local authorities have not acted to abate such sources'', was executed by making the substitution for ''the health of persons, and that appropriate State or local authorities have not acted to abate such sources'' to reflect the probable intent of Congress.

1977—Pub. L. 95–95 designated existing provisions as subsec. (a), inserted provisions that, if it is not practicable to assure prompt protection of the health of persons solely by commencement of a civil action, the Administrator may issue such orders as may be necessary to protect the health of persons who are, or may be, affected by such pollution source (or sources), that, prior to taking any action under this section, the Administrator consult with the State and local authorities in order to confirm the correctness of the information on which the action proposed to be taken is based and to ascertain the action which such authorities are, or will be, taking, that the order be effective for a period of not more than twenty-four hours unless the Administrator brings an action under the first sentence of this subsection before the expiration of such period, and that, whenever the Administrator brings such an action within such period, such order be effective for a period of forty-eight hours or such longer period as may be authorized by the court pending litigation or thereafter, and added subsec. (b).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7604. Citizen suits

(a) Authority to bring civil action; jurisdiction

Except as provided in subsection (b), any person may commence a civil action on his own behalf—

(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the Eleventh Amendment to the Constitution) who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of (A) an emission standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation,

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator, or

(3) against any person who proposes to construct or constructs any new or modified major emitting facility without a permit required under part C of subchapter I (relating to significant deterioration of air quality) or part D of subchapter I (relating to nonattainment) or who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of any condition of such permit.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an emission standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties (except for actions under paragraph (2)). The district courts of the United States shall have jurisdiction to compel (consistent with paragraph (2) of this subsection) agency action unreasonably delayed, except that an action to compel agency action referred to in section 7607(b) of this title which is unreasonably delayed may only be filed in a United States District Court within the circuit in which such action would be reviewable under section 7607(b) of this title. In any such action for unreasonable delay, notice to the entities referred to in subsection (b)(1)(A) shall be provided 180 days before commencing such action.

(b) Notice

No action may be commenced—

(1) under subsection (a)(1)—

(A) prior to 60 days after the plaintiff has given notice of the violation (i) to the Administrator, (ii) to the State in which the violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil

action in a court of the United States or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any person may intervene as a matter of right.[1]

(2) under subsection (a)(2) prior to 60 days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of section 7412(i)(3)(A) or (f)(4) of this title or an order issued by the Administrator pursuant to section 7413(a) of this title. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

(c) Venue; intervention by Administrator; service of complaint; consent judgment

(1) Any action respecting a violation by a stationary source of an emission standard or limitation or an order respecting such standard or limitation may be brought only in the judicial district in which such source is located.

(2) In any action under this section, the Administrator, if not a party, may intervene as a matter of right at any time in the proceeding. A judgment in an action under this section to which the United States is not a party shall not, however, have any binding effect upon the United States.

(3) Whenever any action is brought under this section the plaintiff shall serve a copy of the complaint on the Attorney General of the United States and on the Administrator. No consent judgment shall be entered in an action brought under this section in which the United States is not a party prior to 45 days following the receipt of a copy of the proposed consent judgment by the Attorney General and the Administrator during which time the Government may submit its comments on the proposed consent judgment to the court and parties or may intervene as a matter of right.

(d) Award of costs; security

The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(e) Nonrestriction of other rights

Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency). Nothing in this section or in any other law of the United States shall be construed to prohibit, exclude, or restrict any State, local, or interstate authority from—

(1) bringing any enforcement action or obtaining any judicial remedy or sanction in any State or local court, or

(2) bringing any administrative enforcement action or obtaining any administrative remedy or sanction in any State or local administrative agency, department or instrumentality,

against the United States, any department, agency, or instrumentality thereof, or any officer, agent, or employee thereof under State or local law respecting control and abatement of air pollution. For provisions requiring compliance by the United States, departments, agencies, instrumentalities, officers, agents, and employees in the same manner as nongovernmental entities, see section 7418 of this title.

(f) "Emission standard or limitation under this chapter" defined

For purposes of this section, the term ''emission standard or limitation under this chapter'' means—

(1) a schedule or timetable of compliance, emission limitation, standard of performance or emission standard,

(2) a control or prohibition respecting a motor vehicle fuel or fuel additive, or[2]

(3) any condition or requirement of a permit under part C of subchapter I (relating to significant deterioration of air quality) or part D of subchapter I (relating to nonattainment),,[3] section 7419 of this title (relating to primary nonferrous smelter orders), any condition or requirement under an applicable implementation plan relating to transportation control measures, air quality maintenance plans, vehicle inspection and maintenance programs or vapor recovery requirements, section 7545(e) and (f) of this title (relating to fuels and fuel additives), section 7491 of this title (relating to visibility protection), any condition or requirement under subchapter VI (relating to ozone protection), or any requirement under section 7411 or 7412 of this title (without regard to whether such requirement is expressed as an emission standard or otherwise);[4] or

(4) any other standard, limitation, or schedule established under any permit issued pursuant to subchapter V or under any applicable State implementation plan approved by the Administrator, any permit term or condition, and any requirement to obtain a permit as a condition of operations.[5]

which is in effect under this chapter (including a requirement applicable by reason of section 7418 of this title) or under an applicable implementation plan.

(g) Penalty fund

(1) Penalties received under subsection (a) shall be deposited in a special fund in the United States Treasury for licensing and other services. Amounts in such fund are authorized to be appropriated and shall remain available until expended, for use by the Administrator to finance air compliance and enforcement activities. The Administrator shall annually report to the Congress about the sums deposited into the fund,

[1] So in original. The period probably should be '', or''.

[2] So in original. The word ''or'' probably should not appear.

[3] So in original.

[4] So in original. The semicolon probably should be a comma.

[5] So in original. The period probably should be a comma.

the sources thereof, and the actual and proposed uses thereof.

(2) Notwithstanding paragraph (1) the court in any action under this subsection[6] to apply civil penalties shall have discretion to order that such civil penalties, in lieu of being deposited in the fund referred to in paragraph (1), be used in beneficial mitigation projects which are consistent with this chapter and enhance the public health or the environment. The court shall obtain the view of the Administrator in exercising such discretion and selecting any such projects. The amount of any such payment in any such action shall not exceed $100,000.

(July 14, 1955, ch. 360, title III, §304, as added Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1706; amended Pub. L. 95–95, title III, §303(a)–(c), Aug. 7, 1977, 91 Stat. 771, 772; Pub. L. 95–190, §14(a) (77), (78), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title III, §302(f), title VII, §707(a)–(g), Nov. 15, 1990, 104 Stat. 2574, 2682, 2683.)

REFERENCES IN TEXT

The Federal Rules of Civil Procedure, referred to in subsec. (d), are set out in the Appendix to Title 28, Judiciary and Judicial Procedure.

CODIFICATION

Section was formerly classified to section 1857h–2 of this title.

PRIOR PROVISIONS

A prior section 304 of act July 14, 1955, was renumbered section 311 by Pub. L. 91–604 and is classified to section 7611 of this title.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, §707(a), (f), in closing provisions, inserted before period at end ‘‘, and to apply any appropriate civil penalties (except for actions under paragraph (2))’’ and inserted sentences at end giving courts jurisdiction to compel agency action unreasonably delayed and requiring 180 days notice prior to commencement of action.

Subsec. (a)(1), (3). Pub. L. 101–549, §707(g), inserted ‘‘to have violated (if there is evidence that the alleged violation has been repeated) or’’ before ‘‘to be in violation’’.

Subsec. (b). Pub. L. 101–549, §302(f), substituted ‘‘section 7412(i)(3)(A) or (f)(4)’’ for ‘‘section 7412(c)(1)(B)’’ in closing provisions.

Subsec. (c)(2). Pub. L. 101–549, §707(c), amended par. (2) generally. Prior to amendment, par. (2) read as follows: ‘‘In such action under this section, the Administrator, if not a party, may intervene as a matter of right.’’

Subsec. (c)(3). Pub. L. 101–549, §707(d), added subsec. (c)(3).

Subsec. (f)(3). Pub. L. 101–549, §707(e), struck out ‘‘any condition or requirement of section 7413(d) of this title (relating to certain enforcement orders)’’ before ‘‘, section 7419 of this title’’, substituted ‘‘subchapter VI’’ for ‘‘part B of subchapter I’’, and substituted ‘‘; or’’ for period at end.

Subsec. (f)(4). Pub. L. 101–549, §707(e), which directed that par. (4) be added at end of subsec. (f), was executed by adding par. (4) after par. (3), to reflect the probable intent of Congress.

Subsec. (g). Pub. L. 101–549, §707(b), added subsec. (g).

1977—Subsec. (a)(3). Pub. L. 95–190, §14(a)(77), inserted ‘‘or modified’’ after ‘‘new’’.

Pub. L. 95–95, §303(a), added subsec. (a)(3).

Subsec. (e). Pub. L. 95–95, §303(c), inserted provisions which prohibited any construction of this section or any other law of the United States which would prohibit, exclude, or restrict any State, local, or interstate authority from bringing any enforcement action or obtaining any judicial remedy or sanction in any State or local court against the United States or bringing any administrative enforcement action or obtaining any administrative remedy or sanction against the United States in any State or local administrative agency, department, or instrumentality under State or local law.

Subsec. (f)(3). Pub. L. 95–190, §14(a)(78), inserted ‘‘, or’’ after ‘‘(relating to ozone protection)’’, substituted ‘‘any condition or requirement under an’’ for ‘‘requirements under an’’, and struck out ‘‘or’’ before ‘‘section 7491’’.

Pub. L. 95–95, §303(b), added par. (3).

EFFECTIVE DATE OF 1990 AMENDMENT

Pub. L. 101–549, title VII, §707(g), Nov. 15, 1990, 104 Stat. 2683, provided that: ‘‘The amendment made by this subsection [amending this section] shall take effect with respect to actions brought after the date 2 years after the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990].’’

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective May 15, 2000, of reporting provisions in subsec. (g)(1) of this section, see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 6th item on page 165 of House Document No. 103–7.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7605. Representation in litigation

(a) Attorney General; attorneys appointed by Administrator

The Administrator shall request the Attorney General to appear and represent him in any civil action instituted under this chapter to which the Administrator is a party. Unless the Attorney General notifies the Administrator that he will appear in such action, within a reasonable time, attorneys appointed by the Administrator shall appear and represent him.

[6] So in original. Probably should be ‘‘this section’’.

(b) Memorandum of understanding regarding legal representation

In the event the Attorney General agrees to appear and represent the Administrator in any such action, such representation shall be conducted in accordance with, and shall include participation by, attorneys appointed by the Administrator to the extent authorized by, the memorandum of understanding between the Department of Justice and the Environmental Protection Agency, dated June 13, 1977, respecting representation of the agency by the department in civil litigation.

(July 14, 1955, ch. 360, title III, § 305, as added Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1707; amended Pub. L. 95–95, title III, § 304(a), Aug. 7, 1977, 91 Stat. 772.)

CODIFICATION

Section was formerly classified to section 1857h–3 of this title.

PRIOR PROVISIONS

A prior section 305 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 505, was renumbered section 312 by Pub. L. 91–604 and is classified to section 7612 of this title.

Another prior section 305 of act July 14, 1955, ch. 360, title III, formerly § 12, as added Dec. 17, 1963, Pub. L. 88–206, § 1, 77 Stat. 401, was renumbered section 305 by Pub. L. 89–272, renumbered section 308 by Pub. L. 90–148, and renumbered section 315 by Pub. L. 91–604, and is classified to section 7615 of this title.

AMENDMENTS

1977—Pub. L. 95–95 designated existing provisions as subsec. (a) and added subsec. (b).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7606. Federal procurement

(a) Contracts with violators prohibited

No Federal agency may enter into any contract with any person who is convicted of any offense under section 7413(c) of this title for the procurement of goods, materials, and services to perform such contract at any facility at which the violation which gave rise to such conviction occurred if such facility is owned, leased, or supervised by such person. The prohibition in the preceding sentence shall continue until the Administrator certifies that the condition giving rise to such a conviction has been corrected. For convictions arising under section 7413(c)(2) of this title, the condition giving rise to the conviction also shall be considered to include any substantive violation of this chapter associated with the violation of 7413(c)(2) of this title. The Administrator may extend this prohibition to other facilities owned or operated by the convicted person.

(b) Notification procedures

The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a).

(c) Federal agency contracts

In order to implement the purposes and policy of this chapter to protect and enhance the quality of the Nation's air, the President shall, not more than 180 days after December 31, 1970, cause to be issued an order (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this chapter in such contracting or assistance activities, and (2) setting forth procedures, sanctions, penalties, and such other provisions, as the President determines necessary to carry out such requirement.

(d) Exemptions; notification to Congress

The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.

(July 14, 1955, ch. 360, title III, § 306, as added Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1707; amended Pub. L. 101–549, title VII, § 705, Nov. 15, 1990, 104 Stat. 2682.)

CODIFICATION

Subsec. (e) of this section, which required the President to annually report to Congress on measures taken toward implementing the purpose and intent of this section, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, the 14th item on page 20 of House Document No. 103–7.

Section was formerly classified to section 1857h–4 of this title.

PRIOR PROVISIONS

A prior section 306 of act July 14, 1955, ch. 360, title III, as added Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 506, was renumbered section 313 by Pub. L. 91–604 and is classified to section 7613 of this title.

Another prior section 306 of act July 14, 1955, ch. 360, title III, formerly § 13, as added Dec. 17, 1963, Pub. L. 88–206, § 1, 77 Stat. 401, renumbered § 306, Oct. 20, 1965, Pub. L. 89–272, title I, § 101(4), 79 Stat. 992, renumbered § 309, Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 506, re-

numbered §316, Dec. 31, 1970, Pub. L. 91–604, §12(a), 84 Stat. 1705, related to appropriations and was classified to section 1857*l* of this title, prior to repeal by section 306 of Pub. L. 95–95. See section 7626 of this title.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549 substituted ''section 7413(c)'' for ''section 7413(c)(1)'' and inserted sentences at end relating to convictions arising under section 7413(c)(2) of this title and extension of prohibition to other facilities owned by convicted persons.

FEDERAL ACQUISITION REGULATION: CONTRACTOR CERTIFICATION OR CONTRACT CLAUSE FOR ACQUISITION OF COMMERCIAL ITEMS

Pub. L. 103–355, title VIII, §8301(g), Oct. 13, 1994, 108 Stat. 3397, provided that: ''The Federal Acquisition Regulation may not contain a requirement for a certification by a contractor under a contract for the acquisition of commercial items, or a requirement that such a contract include a contract clause, in order to implement a prohibition or requirement of section 306 of the Clean Air Act (42 U.S.C. 7606) or a prohibition or requirement issued in the implementation of that section, since there is nothing in such section 306 that requires such a certification or contract clause.''

EXECUTIVE ORDER NO. 11602

Ex. Ord. No. 11602, June 29, 1971, 36 F.R. 12475, which related to the administration of the Clean Air Act with respect to Federal contracts, grants, or loans, was superseded by Ex. Ord. No. 11738, Sept. 10, 1973, 38 F.R. 25161, set out below.

EX. ORD. NO. 11738. ADMINISTRATION OF THE CLEAN AIR ACT AND THE FEDERAL WATER POLLUTION CONTROL ACT WITH RESPECT TO FEDERAL CONTRACTS, GRANTS, OR LOANS

Ex. Ord. No. 11738, Sept. 10, 1973, 38 F.R. 25161, provided:

By virtue of the authority vested in me by the provisions of the Clean Air Act, as amended (42 U.S.C. 1857 et seq.) [42 U.S.C. 7401 et seq.], particularly section 306 of that Act as added by the Clean Air Amendments of 1970 (Public Law 91–604) [this section], and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), particularly section 508 of that Act as added by the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92–500) [33 U.S.C. 1368], it is hereby ordered as follows:

SECTION 1. *Policy*. It is the policy of the Federal Government to improve and enhance environmental quality. In furtherance of that policy, the program prescribed in this Order is instituted to assure that each Federal agency empowered to enter into contracts for the procurement of goods, materials, or services and each Federal agency empowered to extend Federal assistance by way of grant, loan, or contract shall undertake such procurement and assistance activities in a manner that will result in effective enforcement of the Clean Air Act [this chapter] (hereinafter referred to as ''the Air Act'') and the Federal Water Pollution Control Act (hereinafter referred to as ''the Water Act'') [33 U.S.C. 1251 et seq.].

SEC. 2. *Designation of Facilities*. (a) The Administrator of the Environmental Protection Agency (hereinafter referred to as ''the Administrator'') shall be responsible for the attainment of the purposes and objectives of this Order.

(b) In carrying out his responsibilities under this Order, the Administrator shall, in conformity with all applicable requirements of law, designate facilities which have given rise to a conviction for an offense under section 113(c)(1) of the Air Act [42 U.S.C. 7413(c)(1)] or section 309(c) of the Water Act [33 U.S.C. 1319(c)]. The Administrator shall, from time to time, publish and circulate to all Federal agencies lists of those facilities, together with the names and addresses of the persons who have been convicted of such offenses. Whenever the Administrator determines that the condition which gave rise to a conviction has been corrected, he shall promptly remove the facility and the name and address of the person concerned from the list.

SEC. 3. *Contracts, Grants, or Loans*. (a) Except as provided in section 8 of this Order, no Federal agency shall enter into any contract for the procurement of goods, materials, or services which is to be performed in whole or in part in a facility then designated by the Administrator pursuant to section 2.

(b) Except as provided in section 8 of this Order, no Federal agency authorized to extend Federal assistance by way of grant, loan, or contract shall extend such assistance in any case in which it is to be used to support any activity or program involving the use of a facility then designated by the Administrator pursuant to section 2.

SEC. 4. *Procurement, Grant, and Loan Regulations*. The Federal Procurement Regulations, the Armed Services Procurement Regulations, and to the extent necessary, any supplemental or comparable regulations issued by any agency of the Executive Branch shall, following consultation with the Administrator, be amended to require, as a condition of entering into, renewing, or extending any contract for the procurement of goods, materials, or services or extending any assistance by way of grant, loan, or contract, inclusion of a provision requiring compliance with the Air Act, the Water Act, and standards issued pursuant thereto in the facilities in which the contract is to be performed, or which are involved in the activity or program to receive assistance.

SEC. 5. *Rules and Regulations*. The Administrator shall issue such rules, regulations, standards, and guidelines as he may deem necessary or appropriate to carry out the purposes of this Order.

SEC. 6. *Cooperation and Assistance*. The head of each Federal agency shall take such steps as may be necessary to insure that all officers and employees of this agency whose duties entail compliance or comparable functions with respect to contracts, grants, and loans are familiar with the provisions of this Order. In addition to any other appropriate action, such officers and employees shall report promptly any condition in a facility which may involve noncompliance with the Air Act or the Water Act or any rules, regulations, standards, or guidelines issued pursuant to this Order to the head of the agency, who shall transmit such reports to the Administrator.

SEC. 7. *Enforcement*. The Administrator may recommend to the Department of Justice or other appropriate agency that legal proceedings be brought or other appropriate action be taken whenever he becomes aware of a breach of any provision required, under the amendments issued pursuant to section 4 of this Order, to be included in a contract or other agreement.

SEC. 8. *Exemptions—Reports to Congress*. (a) Upon a determination that the paramount interest of the United States so requires—

(1) The head of a Federal agency may exempt any contract, grant, or loan, and, following consultation with the Administrator, any class of contracts, grants or loans from the provisions of this Order. In any such case, the head of the Federal agency granting such exemption shall (A) promptly notify the Administrator of such exemption and the justification therefor; (B) review the necessity for each such exemption annually; and (C) report to the Administrator annually all such exemptions in effect. Exemptions granted pursuant to this section shall be for a period not to exceed one year. Additional exemptions may be granted for periods not to exceed one year upon the making of a new determination by the head of the Federal agency concerned.

(2) The Administrator may, by rule or regulation, exempt any or all Federal agencies from any or all of the provisions of this Order with respect to any class or classes of contracts, grants, or loans, which (A) involve less than specified dollar amounts, or (B) have a minimal potential impact upon the environment, or (C) in-

volve persons who are not prime contractors or direct recipients of Federal assistance by way of contracts, grants, or loans.

(b) Federal agencies shall reconsider any exemption granted under subsection (a) whenever requested to do so by the Administrator.

(c) The Administrator shall annually notify the President and the Congress of all exemptions granted, or in effect, under this Order during the preceding year.

SEC. 9. *Related Actions*. The imposition of any sanction or penalty under or pursuant to this Order shall not relieve any person of any legal duty to comply with any provisions of the Air Act or the Water Act.

SEC. 10. *Applicability*. This Order shall not apply to contracts, grants, or loans involving the use of facilities located outside the United States.

SEC. 11. *Uniformity*. Rules, regulations, standards, and guidelines issued pursuant to this order and section 508 of the Water Act [33 U.S.C. 1368] shall, to the maximum extent feasible, be uniform with regulations issued pursuant to this order, Executive Order No. 11602 of June 29, 1971 [formerly set out above], and section 306 of the Air Act [this section].

SEC. 12. *Order Superseded*. Executive Order No. 11602 of June 29, 1971, is hereby superseded.

RICHARD NIXON.

§ 7607. Administrative proceedings and judicial review

(a) Administrative subpenas; confidentiality; witnesses

In connection with any determination under section 7410(f) of this title, or for purposes of obtaining information under section 7521(b)(4)[1] or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the[2] chapter (including but not limited to section 7413, section 7414, section 7420, section 7429, section 7477, section 7524, section 7525, section 7542, section 7603, or section 7606 of this title),,[3] the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 7521(c) of this title, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subparagraph,[4] the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b) Judicial review

(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 7412 of this title, any standard of performance or requirement under section 7411 of this title,,[3] any standard under section 7521 of this title (other than a standard required to be prescribed under section 7521(b)(1) of this title), any determination under section 7521(b)(5)[1] of this title, any control or prohibition under section 7545 of this title, any standard under section 7571 of this title, any rule issued under section 7413, 7419, or under section 7420 of this title, or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 7410 of this title or section 7411(d) of this title, any order under section 7411(j) of this title, under section 7412 of this title, under section 7419 of this title, or under section 7420 of this title, or his action under section 1857c–10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title, or any other final action of the Administrator under this chapter (including any denial or disapproval by the Administrator under subchapter I) which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule

[1] See References in Text note below.

[2] So in original. Probably should be "this".

[3] So in original.

[4] So in original. Probably should be "subsection,".

or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. Where a final decision by the Administrator defers performance of any nondiscretionary statutory action to a later time, any person may challenge the deferral pursuant to paragraph (1).

(c) Additional evidence

In any judicial proceeding in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to[5] the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(d) Rulemaking

(1) This subsection applies to—

(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F) of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV–A (relating to control of acid deposition),

(H) promulgation or revision of regulations pertaining to primary nonferrous smelter orders under section 7419 of this title (but not including the granting or denying of any such order),

(I) promulgation or revision of regulations under subchapter VI (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I (relating to prevention of significant deterioration of air quality and protection of visibility),

(K) promulgation or revision of regulations under section 7521 of this title and test procedures for new motor vehicles or engines under section 7525 of this title, and the revision of a standard under section 7521(a)(3) of this title,

(L) promulgation or revision of regulations for noncompliance penalties under section 7420 of this title,

(M) promulgation or revision of any regulations promulgated under section 7541 of this title (relating to warranties and compliance by vehicles in actual use),

(N) action of the Administrator under section 7426 of this title (relating to interstate pollution abatement),

(O) the promulgation or revision of any regulation pertaining to consumer and commercial products under section 7511b(e) of this title,

(P) the promulgation or revision of any regulation pertaining to field citations under section 7413(d)(3) of this title,

(Q) the promulgation or revision of any regulation pertaining to urban buses or the clean-fuel vehicle, clean-fuel fleet, and clean fuel programs under part C of subchapter II,

(R) the promulgation or revision of any regulation pertaining to nonroad engines or nonroad vehicles under section 7547 of this title,

(S) the promulgation or revision of any regulation relating to motor vehicle compliance program fees under section 7552 of this title,

(T) the promulgation or revision of any regulation under subchapter IV–A (relating to acid deposition),

(U) the promulgation or revision of any regulation under section 7511b(f) of this title pertaining to marine vessels, and

(V) such other actions as the Administrator may determine.

The provisions of section 553 through 557 and section 706 of title 5 shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies. This subsection shall not apply in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of subsection 553(b) of title 5.

(2) Not later than the date of proposal of any action to which this subsection applies, the Administrator shall establish a rulemaking docket for such action (hereinafter in this subsection referred to as a ''rule''). Whenever a rule applies only within a particular State, a second (identical) docket shall be simultaneously established in the appropriate regional office of the Environmental Protection Agency.

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as

[5] So in original. The word ''to'' probably should not appear.

the ''comment period''). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

(4)(A) The rulemaking docket required under paragraph (2) shall be open for inspection by the public at reasonable times specified in the notice of proposed rulemaking. Any person may copy documents contained in the docket. The Administrator shall provide copying facilities which may be used at the expense of the person seeking copies, but the Administrator may waive or reduce such expenses in such instances as the public interest requires. Any person may request copies by mail if the person pays the expenses, including personnel costs to do the copying.

(B)(i) Promptly upon receipt by the agency, all written comments and documentary information on the proposed rule received from any person for inclusion in the docket during the comment period shall be placed in the docket. The transcript of public hearings, if any, on the proposed rule shall also be included in the docket promptly upon receipt from the person who transcribed such hearings. All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

(ii) The drafts of proposed rules submitted by the Administrator to the Office of Management and Budget for any interagency review process prior to proposal of any such rule, all documents accompanying such drafts, and all written comments thereon by other agencies and all written responses to such written comments by the Administrator shall be placed in the docket no later than the date of proposal of the rule. The drafts of the final rule submitted for such review process prior to promulgation and all such written comments thereon, all documents accompanying such drafts, and written responses thereto shall be placed in the docket no later than the date of promulgation.

(5) In promulgating a rule to which this subsection applies (i) the Administrator shall allow any person to submit written comments, data, or documentary information; (ii) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions; (iii) a transcript shall be kept of any oral presentation; and (iv) the Administrator shall keep the record of such proceeding open for thirty days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information.

(6)(A) The promulgated rule shall be accompanied by (i) a statement of basis and purpose like that referred to in paragraph (3) with respect to a proposed rule and (ii) an explanation of the reasons for any major changes in the promulgated rule from the proposed rule.

(B) The promulgated rule shall also be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.

(C) The promulgated rule may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulgation.

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b)). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b)) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies,

the court may reverse any such action found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

(10) Each statutory deadline for promulgation of rules to which this subsection applies which requires promulgation less than six months after date of proposal may be extended to not more than six months after date of proposal by the Administrator upon a determination that such extension is necessary to afford the public, and the agency, adequate opportunity to carry out the purposes of this subsection.

(11) The requirements of this subsection shall take effect with respect to any rule the proposal of which occurs after ninety days after August 7, 1977.

(e) Other methods of judicial review not authorized

Nothing in this chapter shall be construed to authorize judicial review of regulations or orders of the Administrator under this chapter, except as provided in this section.

(f) Costs

In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever it determines that such award is appropriate.

(g) Stay, injunction, or similar relief in proceedings relating to noncompliance penalties

In any action respecting the promulgation of regulations under section 7420 of this title or the administration or enforcement of section 7420 of this title no court shall grant any stay, injunctive, or similar relief before final judgment by such court in such action.

(h) Public participation

It is the intent of Congress that, consistent with the policy of subchapter II of chapter 5 of title 5, the Administrator in promulgating any regulation under this chapter, including a regulation subject to a deadline, shall ensure a reasonable period for public participation of at least 30 days, except as otherwise expressly provided in section[6] 7407(d), 7502(a), 7511(a) and (b), and 7512(a) and (b) of this title.

(July 14, 1955, ch. 360, title III, §307, as added Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1707; amended Pub. L. 92–157, title III, §302(a), Nov. 18, 1971, 85 Stat. 464; Pub. L. 93–319, §6(c), June 22, 1974, 88 Stat. 259; Pub. L. 95–95, title III, §§303(d), 305(a), (c), (f)–(h), Aug. 7, 1977, 91 Stat. 772, 776, 777; Pub. L. 95–190, §14(a)(79), (80), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title I, §§108(p), 110(5), title III, §302(g), (h), title VII, §§702(c), 703, 706, 707(h), 710(b), Nov. 15, 1990, 104 Stat. 2469, 2470, 2574, 2681–2684.)

[6] So in original. Probably should be "sections".

REFERENCES IN TEXT

Section 7521(b)(4) of this title, referred to in subsec. (a), was repealed by Pub. L. 101–549, title II, §230(2), Nov. 15, 1990, 104 Stat. 2529.

Section 7521(b)(5) of this title, referred to in subsec. (b)(1), was repealed by Pub. L. 101–549, title II, §230(3), Nov. 15, 1990, 104 Stat. 2529.

Section 1857c–10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977), referred to in subsec. (b)(1), was in the original "section 119(c)(2)(A), (B), or (C) (as in effect before the date of enactment of the Clean Air Act Amendments of 1977)", meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, §3, 88 Stat. 248, (which was classified to section 1857c–10 of this title) as in effect prior to the enactment of Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95–95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93–319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to subsec. (d)(5) of section 7413 of this title. Section 7413(d) of this title was subsequently amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders. Section 117(b) of Pub. L. 95–95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

Part C of subchapter I, referred to in subsec. (d)(1)(J), was in the original "subtitle C of title I", and was translated as reading "part C of title I" to reflect the probable intent of Congress, because title I does not contain subtitles.

CODIFICATION

In subsec. (h), "subchapter II of chapter 5 of title 5" was substituted for "the Administrative Procedures Act" on authority of Pub. L. 89–554, §7(b), Sept. 6, 1966, 80 Stat. 631, the first section of which enacted Title 5, Government Organization and Employees.

Section was formerly classified to section 1857h–5 of this title.

PRIOR PROVISIONS

A prior section 307 of act July 14, 1955, was renumbered section 314 by Pub. L. 91–604 and is classified to section 7614 of this title.

Another prior section 307 of act July 14, 1955, ch. 360, title III, formerly §14, as added Dec. 17, 1963, Pub. L. 88–206, §1, 77 Stat. 401, was renumbered section 307 by Pub. L. 89–272, renumbered section 310 by Pub. L. 90–148, and renumbered section 317 by Pub. L. 91–604, and is set out as a Short Title note under section 7401 of this title.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, §703, struck out par. (1) designation at beginning, inserted provisions authorizing issuance of subpoenas and administration of oaths for purposes of investigations, monitoring, reporting requirements, entries, compliance inspections, or administrative enforcement proceedings under this chapter, and struck out "or section 7521(b)(5)" after "section 7410(f)".

Subsec. (b)(1). Pub. L. 101–549, §706(2), which directed amendment of second sentence by striking "under section 7413(d) of this title" immediately before "under section 7419 of this title", was executed by striking "under section 7413(d) of this title," before "under section 7419 of this title", to reflect the probable intent of Congress.

Pub. L. 101–549, § 706(1), inserted at end: ''The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.''

Pub. L. 101–549, § 702(c), inserted ''or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title,'' before ''or any other final action of the Administrator''.

Pub. L. 101–549, § 302(g), substituted ''section 7412'' for ''section 7412(c)''.

Subsec. (b)(2). Pub. L. 101–549, § 707(h), inserted sentence at end authorizing challenge to deferrals of performance of nondiscretionary statutory actions.

Subsec. (d)(1)(C). Pub. L. 101–549, § 110(5)(A), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: ''the promulgation or revision of any standard of performance under section 7411 of this title or emission standard under section 7412 of this title,''.

Subsec. (d)(1)(D), (E). Pub. L. 101–549, § 302(h), added subpar. (D) and redesignated former subpar. (D) as (E). Former subpar. (E) redesignated (F).

Subsec. (d)(1)(F). Pub. L. 101–549, § 302(h), redesignated subpar. (E) as (F). Former subpar. (F) redesignated (G).

Pub. L. 101–549, § 110(5)(B), amended subpar. (F) generally. Prior to amendment, subpar. (F) read as follows: ''promulgation or revision of regulations pertaining to orders for coal conversion under section 7413(d)(5) of this title (but not including orders granting or denying any such orders),''.

Subsec. (d)(1)(G), (H). Pub. L. 101–549, § 302(h), redesignated subpars. (F) and (G) as (G) and (H), respectively. Former subpar. (H) redesignated (I).

Subsec. (d)(1)(I). Pub. L. 101–549, § 710(b), which directed that subpar. (H) be amended by substituting ''subchapter VI'' for ''part B of subchapter I'', was executed by making the substitution in subpar. (I), to reflect the probable intent of Congress and the intervening redesignation of subpar. (H) as (I) by Pub. L. 101–549, § 302(h), see below.

Pub. L. 101–549, § 302(h), redesignated subpar. (H) as (I). Former subpar. (I) redesignated (J).

Subsec. (d)(1)(J) to (M). Pub. L. 101–549, § 302(h), redesignated subpars. (I) to (L) as (J) to (M), respectively. Former subpar. (M) redesignated (N).

Subsec. (d)(1)(N). Pub. L. 101–549, § 302(h), redesignated subpar. (M) as (N). Former subpar. (N) redesignated (O).

Pub. L. 101–549, § 110(5)(C), added subpar. (N) and redesignated former subpar. (N) as (U).

Subsec. (d)(1)(O) to (T). Pub. L. 101–549, § 302(h), redesignated subpars. (N) to (S) as (O) to (T), respectively. Former subpar. (T) redesignated (U).

Pub. L. 101–549, § 110(5)(C), added subpars. (O) to (T).

Subsec. (d)(1)(U). Pub. L. 101–549, § 302(h), redesignated subpar. (T) as (U). Former subpar. (U) redesignated (V).

Pub. L. 101–549, § 110(5)(C), redesignated former subpar. (N) as (U).

Subsec. (d)(1)(V). Pub. L. 101–549, § 302(h), redesignated subpar. (U) as (V).

Subsec. (h). Pub. L. 101–549, § 108(p), added subsec. (h).

1977—Subsec. (b)(1). Pub. L. 95–190 in text relating to filing of petitions for review in the United States Court of Appeals for the District of Columbia inserted provision respecting requirements under sections 7411 and 7412 of this title, and substituted provisions authorizing review of any rule issued under section 7413, 7419, or 7420 of this title, for provisions authorizing review of any rule or order issued under section 7420 of this title, relating to noncompliance penalties, and in text relating to filing of petitions for review in the United States Court of Appeals for the appropriate circuit inserted provision respecting review under section 7411(j), 7412(c), 7413(d), or 7419 of this title, provision authorizing review under section 1857c–10(c)(2)(A), (B), or (C) to the period prior to Aug. 7, 1977, and provisions authorizing review of denials or disapprovals by the Administrator under subchapter I of this chapter.

Pub. L. 95–95, § 305(c), (h), inserted rules or orders issued under section 7420 of this title (relating to noncompliance penalties) and any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter to the enumeration of actions of the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the District of Columbia, added the approval or promulgation by the Administrator of orders under section 7420 of this title, or any other final action of the Administrator under this chapter which is locally or regionally applicable to the enumeration of actions by the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the appropriate circuit, inserted provision that petitions otherwise capable of being filed in the Court of Appeals for the appropriate circuit may be filed only in the Court of Appeals for the District of Columbia if the action is based on a determination of nationwide scope, and increased from 30 days to 60 days the period during which the petition must be filed.

Subsec. (d). Pub. L. 95–95, § 305(a), added subsec. (d).

Subsec. (e). Pub. L. 95–95, § 303(d), added subsec. (e).

Subsec. (f). Pub. L. 95–95, § 305(f), added subsec. (f).

Subsec. (g). Pub. L. 95–95, § 305(g), added subsec. (g).

1974—Subsec. (b)(1). Pub. L. 93–319 inserted reference to the Administrator's action under section 1857c–10(c)(2)(A), (B), or (C) of this title or under regulations thereunder and substituted reference to the filing of a petition within 30 days from the date of promulgation, approval, or action for reference to the filing of a petition within 30 days from the date of promulgation or approval.

1971—Subsec. (a)(1). Pub. L. 92–157 substituted reference to section ''7545(c)(3)'' for ''7545(c)(4)'' of this title.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L.

95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7608. Mandatory licensing

Whenever the Attorney General determines, upon application of the Administrator—

(1) that—

(A) in the implementation of the requirements of section 7411, 7412, or 7521 of this title, a right under any United States letters patent, which is being used or intended for public or commercial use and not otherwise reasonably available, is necessary to enable any person required to comply with such limitation to so comply, and

(B) there are no reasonable alternative methods to accomplish such purpose, and

(2) that the unavailability of such right may result in a substantial lessening of competition or tendency to create a monopoly in any line of commerce in any section of the country,

the Attorney General may so certify to a district court of the United States, which may issue an order requiring the person who owns such patent to license it on such reasonable terms and conditions as the court, after hearing, may determine. Such certification may be made to the district court for the district in which the person owning the patent resides, does business, or is found.

(July 14, 1955, ch. 360, title III, §308, as added Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1708.)

CODIFICATION

Section was formerly classified to section 1857h–6 of this title.

PRIOR PROVISIONS

A prior section 308 of act July 14, 1955, was renumbered section 315 by Pub. L. 91–604 and is classified to section 7615 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7609. Policy review

(a) Environmental impact

The Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this chapter or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 4332(2)(C) of this title applies, and (3) proposed regulations published by any department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

(b) Unsatisfactory legislation, action, or regulation

In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determination and the matter shall be referred to the Council on Environmental Quality.

(July 14, 1955, ch. 360, title III, §309, as added Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1709.)

CODIFICATION

Section was formerly classified to section 1857h–7 of this title.

PRIOR PROVISIONS

A prior section 309 of act July 14, 1955, ch. 360, title III, formerly §13, as added Dec. 17, 1963, Pub. L. 88–206, §1, 77 Stat. 401; renumbered §306, Oct. 20, 1965, Pub. L. 89–272, title I, §101(4), 79 Stat. 992; renumbered §309, Nov. 21, 1967, Pub. L. 90–148, §2, 81 Stat. 506; renumbered §316, Dec. 31, 1970, Pub. L. 91–604, §12(a), 84 Stat. 1705, related to appropriations and was classified to section 1857*l* of this title, prior to repeal by section 306 of Pub. L. 95–95. See section 7626 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7610. Other authority

(a) Authority and responsibilities under other laws not affected

Except as provided in subsection (b) of this section, this chapter shall not be construed as superseding or limiting the authorities and responsibilities, under any other provision of law, of the Administrator or any other Federal officer, department, or agency.

(b) Nonduplication of appropriations

No appropriation shall be authorized or made under section 241, 243, or 246 of this title for any fiscal year after the fiscal year ending June 30, 1964, for any purpose for which appropriations may be made under authority of this chapter.

(July 14, 1955, ch. 360, title III, §310, formerly §10, as added Pub. L. 88–206, §1, Dec. 17, 1963, 77 Stat. 401; renumbered §303, Pub. L. 89–272, title I, §101(4), Oct. 20, 1965, 79 Stat. 992; amended

Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 505; renumbered § 310 and amended Pub. L. 91–604, §§ 12(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1705, 1713.)

CODIFICATION

Section was formerly classified to section 1857i of this title.

PRIOR PROVISIONS

A prior section 310 of act July 14, 1955, was renumbered section 317 by Pub. L. 91–604 and is set out as a Short Title note under section 7401 of this title.

Provisions similar to those in subsec. (a) of this section were contained in section 1857f of this title, act July 14, 1955, ch. 360, § 7, 69 Stat. 323, prior to the general amendment of this chapter by Pub. L. 88–206.

AMENDMENTS

1970—Subsec. (a). Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary''.

1967—Subsec. (b). Pub. L. 90–148 substituted reference to section 246 of this title for reference to section 246(c) of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7611. Records and audit

(a) Recipients of assistance to keep prescribed records

Each recipient of assistance under this chapter shall keep such records as the Administrator shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) Audits

The Administrator and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examinations to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this chapter.

(July 14, 1955, ch. 360, title III, § 311, formerly § 11, as added Pub. L. 88–206, § 1, Dec. 17, 1963, 77 Stat. 401; renumbered § 304, Pub. L. 89–272, title I, § 101(4), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 505; renumbered § 311 and amended Pub. L. 91–604, §§ 12(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1705, 1713.)

CODIFICATION

Section was formerly classified to section 1857j of this title.

AMENDMENTS

1970—Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary'' and ''Secretary of Health, Education, and Welfare''.

1967—Pub. L. 90–148 reenacted section without change.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7612. Economic impact analyses

(a) Cost-benefit analysis

The Administrator, in consultation with the Secretary of Commerce, the Secretary of Labor, and the Council on Clean Air Compliance Analysis (as established under subsection (f) of this section), shall conduct a comprehensive analysis of the impact of this chapter on the public health, economy, and environment of the United States. In performing such analysis, the Administrator should consider the costs, benefits and other effects associated with compliance with each standard issued for—

(1) a criteria air pollutant subject to a standard issued under section 7409 of this title;

(2) a hazardous air pollutant listed under section 7412 of this title, including any technology-based standard and any risk-based standard for such pollutant;

(3) emissions from mobile sources regulated under subchapter II of this chapter;

(4) a limitation under this chapter for emissions of sulfur dioxide or nitrogen oxides;

(5) a limitation under subchapter VI of this chapter on the production of any ozone-depleting substance; and

(6) any other section of this chapter.

(b) Benefits

In describing the benefits of a standard described in subsection (a), the Administrator shall consider all of the economic, public health, and environmental benefits of efforts to comply with such standard. In any case where numerical values are assigned to such benefits, a default assumption of zero value shall not be assigned to such benefits unless supported by specific data. The Administrator shall assess how benefits are measured in order to assure that damage to human health and the environment is more accurately measured and taken into account.

(c) Costs

In describing the costs of a standard described in subsection (a), the Administrator shall consider the effects of such standard on employment, productivity, cost of living, economic growth, and the overall economy of the United States.

(d) Initial report

Not later than 12 months after November 15, 1990, the Administrator, in consultation with the Secretary of Commerce, the Secretary of Labor, and the Council on Clean Air Compliance Analysis, shall submit a report to the Congress that summarizes the results of the analysis described in subsection (a), which reports—

(1) all costs incurred previous to November 15, 1990, in the effort to comply with such standards; and

(2) all benefits that have accrued to the United States as a result of such costs.

(e) Omitted

(f) Appointment of Advisory Council on Clean Air Compliance Analysis

Not later than 6 months after November 15, 1990, the Administrator, in consultation with the Secretary of Commerce and the Secretary of Labor, shall appoint an Advisory Council on Clean Air Compliance Analysis of not less than nine members (hereafter in this section referred to as the ''Council''). In appointing such members, the Administrator shall appoint recognized experts in the fields of the health and environmental effects of air pollution, economic analysis, environmental sciences, and such other fields that the Administrator determines to be appropriate.

(g) Duties of Advisory Council

The Council shall—

(1) review the data to be used for any analysis required under this section and make recommendations to the Administrator on the use of such data;

(2) review the methodology used to analyze such data and make recommendations to the Administrator on the use of such methodology; and

(3) prior to the issuance of a report required under subsection (d) or (e), review the findings of such report, and make recommendations to the Administrator concerning the validity and utility of such findings.

(July 14, 1955, ch. 360, title III, §312, formerly §305, as added Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 505; renumbered §312 and amended Pub. L. 91–604, §§12(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1705, 1713; Pub. L. 95–95, title II, §224(c), Aug. 7, 1977, 91 Stat. 767; Pub. L. 101–549, title VIII, §812(a), Nov. 15, 1990, 104 Stat. 2691.)

CODIFICATION

Subsec. (e) of this section, which required the Administrator, in consultation with the Secretary of Commerce, the Secretary of Labor, and the Council on Clean Air Compliance Analysis, to submit a report to Congress that updates the report issued pursuant to subsec. (d) of this section, and which, in addition, makes projections into the future regarding expected costs, benefits, and other effects of compliance with standards pursuant to this chapter as listed in subsec. (a) of this section, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, the 4th item on page 163 of House Document No. 103–7.

Section was formerly classified to section 1857j–1 of this title.

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions which related to: in subsec. (a), detailed cost estimate, comprehensive cost and economic impact studies, and annual reevaluation; in subsec. (b), personnel study and report to President and Congress; and in subsec. (c), cost-effectiveness analyses.

1977—Subsec. (c). Pub. L. 95–95 added subsec. (c).

1970—Pub. L. 91–604, §15(c)(2), substituted ''Administrator'' for ''Secretary'' wherever appearing.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF ADVISORY COUNCILS

Advisory councils established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a council established by the President or an officer of the Federal Government, such council is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a council established by Congress, its duration is otherwise provided by law. See sections 3(2) and 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 770, 776, set out in the Appendix to Title 5, Government Organization and Employees.

EQUIVALENT AIR QUALITY CONTROLS AMONG TRADING NATIONS

Pub. L. 101–549, title VIII, §811, Nov. 15, 1990, 104 Stat. 2690, provided that:

''(a) FINDINGS.—The Congress finds that—

''(1) all nations have the responsibility to adopt and enforce effective air quality standards and requirements and the United States, in enacting this Act [see Tables for classification], is carrying out its responsibility in this regard;

''(2) as a result of complying with this Act, businesses in the United States will make significant capital investments and incur incremental costs in implementing control technology standards;

''(3) such compliance may impair the competitiveness of certain United States jobs, production, processes, and products if foreign goods are produced under less costly environmental standards and requirements than are United States goods; and

''(4) mechanisms should be sought through which the United States and its trading partners can agree to eliminate or reduce competitive disadvantages.

''(b) ACTION BY THE PRESIDENT.—

''(1) IN GENERAL.—Within 18 months after the date of the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the President shall submit to the Congress a report—

''(A) identifying and evaluating the economic effects of—

''(i) the significant air quality standards and controls required under this Act, and

''(ii) the differences between the significant standards and controls required under this Act and similar standards and controls adopted and enforced by the major trading partners of the United States,

on the international competitiveness of United States manufacturers; and

''(B) containing a strategy for addressing such economic effects through trade consultations and negotiations.

''(2) ADDITIONAL REPORTING REQUIREMENTS.—(A) The evaluation required under paragraph (1)(A) shall examine the extent to which the significant air quality standards and controls required under this Act are comparable to existing internationally-agreed norms.

''(B) The strategy required to be developed under paragraph (1)(B) shall include recommended options

(such as the harmonization of standards and trade adjustment measures) for reducing or eliminating competitive disadvantages caused by differences in standards and controls between the United States and each of its major trading partners.

''(3) PUBLIC COMMENT.—Interested parties shall be given an opportunity to submit comments regarding the evaluations and strategy required in the report under paragraph (1). The President shall take any such comment into account in preparing the report.

''(4) INTERIM REPORT.—Within 9 months after the date of the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the President shall submit to the Congress an interim report on the progress being made in complying with paragraph (1).''

GAO REPORTS ON COSTS AND BENEFITS

Pub. L. 101–549, title VIII, § 812(b), Nov. 15, 1990, 104 Stat. 2693, which directed Comptroller General, commencing on second year after Nov. 15, 1990, and annually thereafter, in consultation with other agencies, to report to Congress on pollution control strategies and technologies required by Clean Air Act Amendments of 1990, was repealed by Pub. L. 104–316, title I, § 122(r), Oct. 19, 1996, 110 Stat. 3838.

§ 7613. Repealed. Pub. L. 101–549, title VIII, § 803, Nov. 15, 1990, 104 Stat. 2689

Section, act July 14, 1955, ch. 360, title III, § 313, formerly § 306, as added Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 506; renumbered § 313 and amended Dec. 31, 1970, Pub. L. 91–604, §§ 12(a), 15(c)(2), 84 Stat. 1705, 1713; Aug. 7, 1977, Pub. L. 95–95, title III, § 302(b), 91 Stat. 771, required annual report to Congress on progress of programs under this chapter.

§ 7614. Labor standards

The Administrator shall take such action as may be necessary to insure that all laborers and mechanics employed by contractors or subcontractors on projects assisted under this chapter shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the locality as determined by the Secretary of Labor, in accordance with sections 3141–3144, 3146, and 3147 of title 40. The Secretary of Labor shall have, with respect to the labor standards specified in this subsection,[1] the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267) and section 3145 of title 40.

(July 14, 1955, ch. 360, title III, § 314, formerly § 307, as added Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 506; renumbered § 314 and amended Pub. L. 91–604, §§ 12(a), 15(c)(2), Dec. 31, 1970, 84 Stat. 1705, 1713.)

REFERENCES IN TEXT

Reorganization Plan Numbered 14 of 1950, referred to in text, is set out in the Appendix to Title 5, Government Organization and Employees.

CODIFICATION

In text, ''sections 3141–3144, 3146, and 3147 of title 40'' substituted for ''the Act of March 3, 1931, as amended, known as the Davis-Bacon Act (46 Stat. 1494; 40 U.S.C. 276a—276a–5)'' and ''section 3145 of title 40'' substituted for ''section 2 of the Act of June 13, 1934, as amended (48 Stat. 948; 40 U.S.C. 276c)'', on authority of Pub. L. 107–217, § 5(c), Aug. 21, 2002, 116 Stat. 1303, the first section of which enacted Title 40, Public Buildings, Property, and Works.

Section was formerly classified to section 1857j–3 of this title.

AMENDMENTS

1970—Pub. L. 91–604, § 15(c)(2), substituted ''Administrator'' for ''Secretary'' meaning the Secretary of Health, Education, and Welfare.

§ 7615. Separability

If any provision of this chapter, or the application of any provision of this chapter to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this chapter shall not be affected thereby.

(July 14, 1955, ch. 360, title III, § 315, formerly § 12, as added Pub. L. 88–206, § 1, Dec. 17, 1963, 77 Stat. 401; renumbered § 305, Pub. L. 89–272, title I, § 101(4), Oct. 20, 1965, 79 Stat. 992; renumbered § 308 and amended, Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 506; renumbered § 315, Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1705.)

CODIFICATION

Section was formerly classified to section 1857k of this title.

AMENDMENTS

1967—Pub. L. 90–148 reenacted section without change.

§ 7616. Sewage treatment grants

(a) Construction

No grant which the Administrator is authorized to make to any applicant for construction of sewage treatment works in any area in any State may be withheld, conditioned, or restricted by the Administrator on the basis of any requirement of this chapter except as provided in subsection (b).

(b) Withholding, conditioning, or restriction of construction grants

The Administrator may withhold, condition, or restrict the making of any grant for construction referred to in subsection (a) only if he determines that—

(1) such treatment works will not comply with applicable standards under section 7411 or 7412 of this title,

(2) the State does not have in effect, or is not carrying out, a State implementation plan approved by the Administrator which expressly quantifies and provides for the increase in emissions of each air pollutant (from stationary and mobile sources in any area to which either part C or part D of subchapter I applies for such pollutant) which increase may reasonably be anticipated to result directly or indirectly from the new sewage treatment capacity which would be created by such construction.[1]

(3) the construction of such treatment works would create new sewage treatment capacity which—

(A) may reasonably be anticipated to cause or contribute to, directly or indirectly, an increase in emissions of any air pollutant in excess of the increase provided

[1] So in original. Probably should be ''section,''.

[1] So in original. The period probably should be a comma.

for under the provisions referred to in paragraph (2) for any such area, or

(B) would otherwise not be in conformity with the applicable implementation plan, or

(4) such increase in emissions would interfere with, or be inconsistent with, the applicable implementation plan for any other State.

In the case of construction of a treatment works which would result, directly or indirectly, in an increase in emissions of any air pollutant from stationary and mobile sources in an area to which part D of subchapter I applies, the quantification of emissions referred to in paragraph (2) shall include the emissions of any such pollutant resulting directly or indirectly from areawide and nonmajor stationary source growth (mobile and stationary) for each such area.

(c) National Environmental Policy Act

Nothing in this section shall be construed to amend or alter any provision of the National Environmental Policy Act [42 U.S.C. 4321 et seq.] or to affect any determination as to whether or not the requirements of such Act have been met in the case of the construction of any sewage treatment works.

(July 14, 1955, ch. 360, title III, §316, as added Pub. L. 95–95, title III, §306, Aug. 7, 1977, 91 Stat. 777.)

REFERENCES IN TEXT

The National Environmental Policy Act, referred to in subsec. (c), probably means the National Environmental Policy Act of 1969, Pub. L. 91–190, Jan. 1, 1970, 83 Stat. 852, as amended, which is classified generally to chapter 55 (§4321 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 4321 of this title and Tables.

PRIOR PROVISIONS

A prior section 316 of act July 14, 1955, ch. 360, title III, formerly §13, as added Dec. 17, 1963, Pub. L. 88–206, §1, 77 Stat. 401; renumbered §306 and amended Oct. 20, 1965, Pub. L. 89–272, title I, §101(4), (6), (7), 79 Stat. 992; Oct. 15, 1966, Pub. L. 89–675, §2(a), 80 Stat. 954; renumbered §309 and amended Nov. 21, 1967, Pub. L. 90–148, §2, 81 Stat. 506; renumbered §316 and amended Dec. 31, 1970, Pub. L. 91–604, §§12(a), 13(b), 84 Stat. 1705, 1709; Apr. 9, 1973, Pub. L. 93–15, §1(c), 87 Stat. 11; June 22, 1974, Pub. L. 93–319, §13(c), 88 Stat. 265, authorized appropriations for air pollution control, prior to repeal by section 306 of Pub. L. 95–95. See section 7626 of this title.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7617. Economic impact assessment

(a) Notice of proposed rulemaking; substantial revisions

This section applies to action of the Administrator in promulgating or revising—

(1) any new source standard of performance under section 7411 of this title,

(2) any regulation under section 7411(d) of this title,

(3) any regulation under part B[1] of subchapter I (relating to ozone and stratosphere protection),

(4) any regulation under part C of subchapter I (relating to prevention of significant deterioration of air quality),

(5) any regulation establishing emission standards under section 7521 of this title and any other regulation promulgated under that section,

(6) any regulation controlling or prohibiting any fuel or fuel additive under section 7545(c) of this title, and

(7) any aircraft emission standard under section 7571 of this title.

Nothing in this section shall apply to any standard or regulation described in paragraphs (1) through (7) of this subsection unless the notice of proposed rulemaking in connection with such standard or regulation is published in the Federal Register after the date ninety days after August 7, 1977. In the case of revisions of such standards or regulations, this section shall apply only to revisions which the Administrator determines to be substantial revisions.

(b) Preparation of assessment by Administrator

Before publication of notice of proposed rulemaking with respect to any standard or regulation to which this section applies, the Administrator shall prepare an economic impact assessment respecting such standard or regulation. Such assessment shall be included in the docket required under section 7607(d)(2) of this title and shall be available to the public as provided in section 7607(d)(4) of this title. Notice of proposed rulemaking shall include notice of such availability together with an explanation of the extent and manner in which the Administrator has considered the analysis contained in such economic impact assessment in proposing the action. The Administrator shall also provide such an explanation in his notice of promulgation of any regulation or standard referred to in subsection (a). Each such explanation shall be part of the statements of basis and purpose required under sections 7607(d)(3) and 7607(d)(6) of this title.

(c) Analysis

Subject to subsection (d), the assessment required under this section with respect to any standard or regulation shall contain an analysis of—

(1) the costs of compliance with any such standard or regulation, including extent to which the costs of compliance will vary depending on (A) the effective date of the standard or regulation, and (B) the development of less expensive, more efficient means or methods of compliance with the standard or regulation;

(2) the potential inflationary or recessionary effects of the standard or regulation;

(3) the effects on competition of the standard or regulation with respect to small business;

(4) the effects of the standard or regulation on consumer costs; and

(5) the effects of the standard or regulation on energy use.

Nothing in this section shall be construed to provide that the analysis of the factors specified in this subsection affects or alters the factors

[1] See References in Text note below.

which the Administrator is required to consider in taking any action referred to in subsection (a).

(d) Extensiveness of assessment

The assessment required under this section shall be as extensive as practicable, in the judgment of the Administrator taking into account the time and resources available to the Environmental Protection Agency and other duties and authorities which the Administrator is required to carry out under this chapter.

(e) Limitations on construction of section

Nothing in this section shall be construed—

(1) to alter the basis on which a standard or regulation is promulgated under this chapter;

(2) to preclude the Administrator from carrying out his responsibility under this chapter to protect public health and welfare; or

(3) to authorize or require any judicial review of any such standard or regulation, or any stay or injunction of the proposal, promulgation, or effectiveness of such standard or regulation on the basis of failure to comply with this section.

(f) Citizen suits

The requirements imposed on the Administrator under this section shall be treated as nondiscretionary duties for purposes of section 7604(a)(2) of this title, relating to citizen suits. The sole method for enforcement of the Administrator's duty under this section shall be by bringing a citizen suit under such section 7604(a)(2) for a court order to compel the Administrator to perform such duty. Violation of any such order shall subject the Administrator to penalties for contempt of court.

(g) Costs

In the case of any provision of this chapter in which costs are expressly required to be taken into account, the adequacy or inadequacy of any assessment required under this section may be taken into consideration, but shall not be treated for purposes of judicial review of any such provision as conclusive with respect to compliance or noncompliance with the requirement of such provision to take cost into account.

(July 14, 1955, ch. 360, title III, §317, as added Pub. L. 95–95, title III, §307, Aug. 7, 1977, 91 Stat. 778; amended Pub. L. 95–623, §13(d), Nov. 9, 1978, 92 Stat. 3458.)

REFERENCES IN TEXT

Part B of subchapter I, referred to in subsec. (a)(3), was repealed by Pub. L. 101–549, title VI, §601, Nov. 15, 1990, 104 Stat. 2648. See subchapter VI (§7671 et seq.) of this chapter.

CODIFICATION

Another section 317 of act July 14, 1955, is set out as a Short Title note under section 7401 of this title.

AMENDMENTS

1978—Subsec. (a)(1). Pub. L. 95–623 substituted ''section 7411'' for ''section 7411(b)''.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7618. Repealed. Pub. L. 101–549, title I, § 108(q), Nov. 15, 1990, 104 Stat. 2469

Section, act July 14, 1955, ch. 360, title III, §318, as added Aug. 7, 1977, Pub. L. 95–95, title III, §308, 91 Stat. 780, related to financial disclosure and conflicts of interest.

§ 7619. Air quality monitoring

(a) In general

After notice and opportunity for public hearing, the Administrator shall promulgate regulations establishing an air quality monitoring system throughout the United States which—

(1) utilizes uniform air quality monitoring criteria and methodology and measures such air quality according to a uniform air quality index,

(2) provides for air quality monitoring stations in major urban areas and other appropriate areas throughout the United States to provide monitoring such as will supplement (but not duplicate) air quality monitoring carried out by the States required under any applicable implementation plan,

(3) provides for daily analysis and reporting of air quality based upon such uniform air quality index, and

(4) provides for recordkeeping with respect to such monitoring data and for periodic analysis and reporting to the general public by the Administrator with respect to air quality based upon such data.

The operation of such air quality monitoring system may be carried out by the Administrator or by such other departments, agencies, or entities of the Federal Government (including the National Weather Service) as the President may deem appropriate. Any air quality monitoring system required under any applicable implementation plan under section 7410 of this title shall, as soon as practicable following promulgation of regulations under this section, utilize the standard criteria and methodology, and measure air quality according to the standard index, established under such regulations.

(b) Air quality monitoring data influenced by exceptional events

(1) Definition of exceptional event

In this section:

(A) In general

The term ''exceptional event'' means an event that—

(i) affects air quality;

(ii) is not reasonably controllable or preventable;

(iii) is an event caused by human activity that is unlikely to recur at a particular location or a natural event; and

(iv) is determined by the Administrator through the process established in the regulations promulgated under paragraph (2) to be an exceptional event.

(B) Exclusions

In this subsection, the term ''exceptional event'' does not include—

(i) stagnation of air masses or meteorological inversions;

(ii) a meteorological event involving high temperatures or lack of precipitation; or

(iii) air pollution relating to source noncompliance.

(2) Regulations

(A) Proposed regulations

Not later than March 1, 2006, after consultation with Federal land managers and State air pollution control agencies, the Administrator shall publish in the Federal Register proposed regulations governing the review and handling of air quality monitoring data influenced by exceptional events.

(B) Final regulations

Not later than 1 year after the date on which the Administrator publishes proposed regulations under subparagraph (A), and after providing an opportunity for interested persons to make oral presentations of views, data, and arguments regarding the proposed regulations, the Administrator shall promulgate final regulations governing the review and handling or[1] air quality monitoring data influenced by an exceptional event that are consistent with paragraph (3).

(3) Principles and requirements

(A) Principles

In promulgating regulations under this section, the Administrator shall follow—

(i) the principle that protection of public health is the highest priority;

(ii) the principle that timely information should be provided to the public in any case in which the air quality is unhealthy;

(iii) the principle that all ambient air quality data should be included in a timely manner,[2] an appropriate Federal air quality database that is accessible to the public;

(iv) the principle that each State must take necessary measures to safeguard public health regardless of the source of the air pollution; and

(v) the principle that air quality data should be carefully screened to ensure that events not likely to recur are represented accurately in all monitoring data and analyses.

(B) Requirements

Regulations promulgated under this section shall, at a minimum, provide that—

(i) the occurrence of an exceptional event must be demonstrated by reliable, accurate data that is promptly produced and provided by Federal, State, or local government agencies;

(ii) a clear causal relationship must exist between the measured exceedances of a national ambient air quality standard and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location;

(iii) there is a public process for determining whether an event is exceptional; and

(iv) there are criteria and procedures for the Governor of a State to petition the Administrator to exclude air quality monitoring data that is directly due to exceptional events from use in determinations by the Administrator with respect to exceedances or violations of the national ambient air quality standards.

(4) Interim provision

Until the effective date of a regulation promulgated under paragraph (2), the following guidance issued by the Administrator shall continue to apply:

(A) Guidance on the identification and use of air quality data affected by exceptional events (July 1986).

(B) Areas affected by PM–10 natural events, May 30, 1996.

(C) Appendices I, K, and N to part 50 of title 40, Code of Federal Regulations.

(July 14, 1955, ch. 360, title III, § 319, as added Pub. L. 95–95, title III, § 309, Aug. 7, 1977, 91 Stat. 781; amended Pub. L. 109–59, title VI, § 6013(a), Aug. 10, 2005, 119 Stat. 1882.)

AMENDMENTS

2005—Pub. L. 109–59 designated existing provisions as subsec. (a), inserted heading, substituted ''After notice and opportunity for public hearing'' for ''Not later than one year after August 7, 1977, and after notice and opportunity for public hearing'', and added subsec. (b).

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7620. Standardized air quality modeling

(a) Conferences

Not later than six months after August 7, 1977, and at least every three years thereafter, the Administrator shall conduct a conference on air quality modeling. In conducting such conference, special attention shall be given to appropriate modeling necessary for carrying out part C of subchapter I (relating to prevention of significant deterioration of air quality).

(b) Conferees

The conference conducted under this section shall provide for participation by the National Academy of Sciences, representatives of State and local air pollution control agencies, and appropriate Federal agencies, including the National Science Foundation;[1] the National Oceanic and Atmospheric Administration, and the National Institute of Standards and Technology.

(c) Comments; transcripts

Interested persons shall be permitted to submit written comments and a verbatim transcript of the conference proceedings shall be maintained.

(d) Promulgation and revision of regulations relating to air quality modeling

The comments submitted and the transcript maintained pursuant to subsection (c) shall be

[1] So in original. Probably should be ''of''.

[2] So in original. Probably should be followed by ''in''.

[1] So in original. The semicolon probably should be a comma.

included in the docket required to be established for purposes of promulgating or revising any regulation relating to air quality modeling under part C of subchapter I.

(July 14, 1955, ch. 360, title III, § 320, as added Pub. L. 95–95, title III, § 310, Aug. 7, 1977, 91 Stat. 782; amended Pub. L. 100–418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433.)

AMENDMENTS

1988—Subsec. (b). Pub. L. 100–418 substituted ''National Institute of Standards and Technology'' for ''National Bureau of Standards''.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7621. Employment effects

(a) Continuous evaluation of potential loss or shifts of employment

The Administrator shall conduct continuing evaluations of potential loss or shifts of employment which may result from the administration or enforcement of the provision of this chapter and applicable implementation plans, including where appropriate, investigating threatened plant closures or reductions in employment allegedly resulting from such administration or enforcement.

(b) Request for investigation; hearings; record; report

Any employee, or any representative of such employee, who is discharged or laid off, threatened with discharge or layoff, or whose employment is otherwise adversely affected or threatened to be adversely affected because of the alleged results of any requirement imposed or proposed to be imposed under this chapter, including any requirement applicable to Federal facilities and any requirement imposed by a State or political subdivision thereof, may request the Administrator to conduct a full investigation of the matter. Any such request shall be reduced to writing, shall set forth with reasonable particularity the grounds for the request, and shall be signed by the employee, or representative of such employee, making the request. The Administrator shall thereupon investigate the matter and, at the request of any party, shall hold public hearings on not less than five days' notice. At such hearings, the Administrator shall require the parties, including the employer involved, to present information relating to the actual or potential effect of such requirements on employment and the detailed reasons or justification therefor. If the Administrator determines that there are no reasonable grounds for conducting a public hearing he shall notify (in writing) the party requesting such hearing of such a determination and the reasons therefor. If the Administrator does convene such a hearing, the hearing shall be on the record. Upon receiving the report of such investigation, the Administrator shall make findings of fact as to the effect of such requirements on employment and on the alleged actual or potential discharge, layoff, or other adverse effect on employment, and shall make such recommendations as he deems appropriate. Such report, findings, and recommendations shall be available to the public.

(c) Subpenas; confidential information; witnesses; penalty

In connection with any investigation or public hearing conducted under subsection (b) of this section or as authorized in section 7419 of this title (relating to primary nonferrous smelter orders), the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner, or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In cases of contumacy or refusal to obey a subpena served upon any person under this subparagraph,[1] the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(d) Limitations on construction of section

Nothing in this section shall be construed to require or authorize the Administrator, the States, or political subdivisions thereof, to modify or withdraw any requirement imposed or proposed to be imposed under this chapter.

(July 14, 1955, ch. 360, title III, § 321, as added Pub. L. 95–95, title III, § 311, Aug. 7, 1977, 91 Stat. 782.)

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

STUDY OF POTENTIAL DISLOCATION OF EMPLOYEES

Pub. L. 95–95, title IV, § 403(e), Aug. 7, 1977, 91 Stat. 793, provided that the Secretary of Labor, in consultation with the Administrator, conduct a study of potential dislocation of employees due to implementation of laws administered by the Administrator and that the Secretary submit to Congress the results of the study not more than one year after Aug. 7, 1977.

[1] So in original. Probably should be ''subsection,''

§ 7622. Employee protection

(a) Discharge or discrimination prohibited

No employer may discharge any employee or otherwise discriminate against any employee with respect to his compensation, terms, conditions, or privileges of employment because the employee (or any person acting pursuant to a request of the employee)—

(1) commenced, caused to be commenced, or is about to commence or cause to be commenced a proceeding under this chapter or a proceeding for the administration or enforcement of any requirement imposed under this chapter or under any applicable implementation plan,

(2) testified or is about to testify in any such proceeding, or

(3) assisted or participated or is about to assist or participate in any manner in such a proceeding or in any other action to carry out the purposes of this chapter.

(b) Complaint charging unlawful discharge or discrimination; investigation; order

(1) Any employee who believes that he has been discharged or otherwise discriminated against by any person in violation of subsection (a) may, within thirty days after such violation occurs, file (or have any person file on his behalf) a complaint with the Secretary of Labor (hereinafter in this subsection referred to as the ''Secretary'') alleging such discharge or discrimination. Upon receipt of such a complaint, the Secretary shall notify the person named in the complaint of the filing of the complaint.

(2)(A) Upon receipt of a complaint filed under paragraph (1), the Secretary shall conduct an investigation of the violation alleged in the complaint. Within thirty days of the receipt of such complaint, the Secretary shall complete such investigation and shall notify in writing the complainant (and any person acting in his behalf) and the person alleged to have committed such violation of the results of the investigation conducted pursuant to this subparagraph. Within ninety days of the receipt of such complaint the Secretary shall, unless the proceeding on the complaint is terminated by the Secretary on the basis of a settlement entered into by the Secretary and the person alleged to have committed such violation, issue an order either providing the relief prescribed by subparagraph (B) or denying the complaint. An order of the Secretary shall be made on the record after notice and opportunity for public hearing. The Secretary may not enter into a settlement terminating a proceeding on a complaint without the participation and consent of the complainant.

(B) If, in response to a complaint filed under paragraph (1), the Secretary determines that a violation of subsection (a) has occurred, the Secretary shall order the person who committed such violation to (i) take affirmative action to abate the violation, and (ii) reinstate the complainant to his former position together with the compensation (including back pay), terms, conditions, and privileges of his employment, and the Secretary may order such person to provide compensatory damages to the complainant. If an order is issued under this paragraph, the Secretary, at the request of the complainant, shall assess against the person against whom the order is issued a sum equal to the aggregate amount of all costs and expenses (including attorneys' and expert witness fees) reasonably incurred, as determined by the Secretary, by the complainant for, or in connection with, the bringing of the complaint upon which the order was issued.

(c) Review

(1) Any person adversely affected or aggrieved by an order issued under subsection (b) may obtain review of the order in the United States court of appeals for the circuit in which the violation, with respect to which the order was issued, allegedly occurred. The petition for review must be filed within sixty days from the issuance of the Secretary's order. Review shall conform to chapter 7 of title 5. The commencement of proceedings under this subparagraph[1] shall not, unless ordered by the court, operate as a stay of the Secretary's order.

(2) An order of the Secretary with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in any criminal or other civil proceeding.

(d) Enforcement of order by Secretary

Whenever a person has failed to comply with an order issued under subsection (b)(2), the Secretary may file a civil action in the United States district court for the district in which the violation was found to occur to enforce such order. In actions brought under this subsection, the district courts shall have jurisdiction to grant all appropriate relief including, but not limited to, injunctive relief, compensatory, and exemplary damages.

(e) Enforcement of order by person on whose behalf order was issued

(1) Any person on whose behalf an order was issued under paragraph (2) of subsection (b) may commence a civil action against the person to whom such order was issued to require compliance with such order. The appropriate United States district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such order.

(2) The court, in issuing any final order under this subsection, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such award is appropriate.

(f) Mandamus

Any nondiscretionary duty imposed by this section shall be enforceable in a mandamus proceeding brought under section 1361 of title 28.

(g) Deliberate violation by employee

Subsection (a) shall not apply with respect to any employee who, acting without direction from his employer (or the employer's agent), deliberately causes a violation of any requirement of this chapter.

(July 14, 1955, ch. 360, title III, § 322, as added Pub. L. 95–95, title III, § 312, Aug. 7, 1977, 91 Stat. 783.)

[1] So in original.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7623. Repealed. Pub. L. 96–300, § 1(c), July 2, 1980, 94 Stat. 831

Section, act July 14, 1955, ch. 360, title III, § 323, as added Aug. 7, 1977, Pub. L. 95–95, title III, § 313, 91 Stat. 785; amended Nov. 16, 1977, Pub. L. 95–190, § 14(a)(81), 91 Stat. 1404; S. Res. 4, Feb. 4, 1977; H. Res. 549, Mar. 25, 1980; July 2, 1980, Pub. L. 96–300, § 1(a), 94 Stat. 831, established a National Commission on Air Quality, prescribed numerous subjects for study and report to Congress, enumerated specific questions for study and investigation, required specific identification of loss or irretrievable commitment of resources, and provided for appointment and confirmation of its membership, cooperation of Federal executive agencies, submission of a National Academy of Sciences study to Congress, compensation and travel expenses, termination of Commission, appointment and compensation of staff, and public participation.

EFFECTIVE DATE OF REPEAL

Pub. L. 96–300, § 1(c), July 2, 1980, 94 Stat. 831, provided that this section is repealed on date on which National Commission on Air Quality ceases to exist pursuant to provisions of former subsec. (g) of this section, which provided that not later than Mar. 1, 1981, a report be submitted containing results of all Commission studies and investigations and that Commission cease to exist on Mar. 1, 1981, if report is not submitted on Mar. 1, 1981, or Commission would cease to exist on such date, but not later than May 1, 1981, as determined and ordered by Commission if report is submitted on Mar. 1, 1981.

NATIONAL COMMISSION ON AIR QUALITY; EXTENSION PROHIBITION

Pub. L. 96–300, § 1(d), July 2, 1980, 94 Stat. 831, provided that nothing in any other authority of law shall be construed to authorize or permit the extension of the National Commission on Air Quality pursuant to any Executive order or other Executive or agency action.

§ 7624. Cost of vapor recovery equipment

(a) Costs to be borne by owner of retail outlet

The regulations under this chapter applicable to vapor recovery with respect to mobile source fuels at retail outlets of such fuels shall provide that the cost of procurement and installation of such vapor recovery shall be borne by the owner of such outlet (as determined under such regulations). Except as provided in subsection (b), such regulations shall provide that no lease of a retail outlet by the owner thereof which is entered into or renewed after August 7, 1977, may provide for a payment by the lessee of the cost of procurement and installation of vapor recovery equipment. Such regulations shall also provide that the cost of procurement and installation of vapor recovery equipment may be recovered by the owner of such outlet by means of price increases in the cost of any product sold by such owner, notwithstanding any provision of law.

(b) Payment by lessee

The regulations of the Administrator referred to in subsection (a) shall permit a lease of a retail outlet to provide for payment by the lessee of the cost of procurement and installation of vapor recovery equipment over a reasonable period (as determined in accordance with such regulations), if the owner of such outlet does not sell, trade in, or otherwise dispense any product at wholesale or retail at such outlet.

(July 14, 1955, ch. 360, title III, § 323, formerly § 324, as added Pub. L. 95–95, title III, § 314(a), Aug. 7, 1977, 91 Stat. 788; amended Pub. L. 95–190, § 14(a)(82), Nov. 16, 1977, 91 Stat. 1404; renumbered § 323 and amended Pub. L. 96–300, § 1(b), (c), July 2, 1980, 94 Stat. 831.)

PRIOR PROVISIONS

A prior section 323 of act July 14, 1955, was classified to section 7623 of this title prior to repeal by Pub. L. 96–300, § 1(c), July 2, 1980, 94 Stat. 831.

AMENDMENTS

1980—Pub. L. 96–300, § 1(b), which directed that last sentence of this section be struck out was probably intended to strike sentence purportedly added by Pub. L. 95–190. See 1977 Amendment note below and section 7623(i) of this title.

1977—Pub. L. 95–190 which purported to amend subsec. (j) of this section by inserting ''The Commission may appoint and fix the pay of such staff as it deems necessary.'' after ''(j)'' was not executed to this section because it did not contain a subsec. (j). See 1980 Amendment note above.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7625. Vapor recovery for small business marketers of petroleum products

(a) Marketers of gasoline

The regulations under this chapter applicable to vapor recovery from fueling of motor vehicles at retail outlets of gasoline shall not apply to any outlet owned by an independent small business marketer of gasoline having monthly sales of less than 50,000 gallons. In the case of any other outlet owned by an independent small business marketer, such regulations shall provide, with respect to independent small business marketers of gasoline, for a three-year phase-in period for the installation of such vapor recovery equipment at such outlets under which such marketers shall have—

(1) 33 percent of such outlets in compliance at the end of the first year during which such regulations apply to such marketers,

(2) 66 percent at the end of such second year, and

(3) 100 percent at the end of the third year.

(b) State requirements

Nothing in subsection (a) shall be construed to prohibit any State from adopting or enforcing, with respect to independent small business marketers of gasoline having monthly sales of less than 50,000 gallons, any vapor recovery requirements for mobile source fuels at retail outlets. Any vapor recovery requirement which is adopted by a State and submitted to the Administrator as part of its implementation plan may be approved and enforced by the Administrator as part of the applicable implementation plan for that State.

(c) Refiners

For purposes of this section, an independent small business marketer of gasoline is a person

engaged in the marketing of gasoline who would be required to pay for procurement and installation of vapor recovery equipment under section 7624[1] of this title or under regulations of the Administrator, unless such person—

(1)(A) is a refiner, or[2]

(B) controls, is controlled by, or is under common control with, a refiner,

(C) is otherwise directly or indirectly affiliated (as determined under the regulations of the Administrator) with a refiner or with a person who controls, is controlled by, or is under a common control with a refiner (unless the sole affiliation referred to herein is by means of a supply contract or an agreement or contract to use a trademark, trade name, service mark, or other identifying symbol or name owned by such refiner or any such person), or

(2) receives less than 50 percent of his annual income from refining or marketing of gasoline.

For the purpose of this section, the term ''refiner'' shall not include any refiner whose total refinery capacity (including the refinery capacity of any person who controls, is controlled by, or is under common control with, such refiner) does not exceed 65,000 barrels per day. For purposes of this section, ''control'' of a corporation means ownership of more than 50 percent of its stock.

(July 14, 1955, ch. 360, title III, §324, formerly §325, as added Pub. L. 95–95, title III, §314(b), Aug. 7, 1977, 91 Stat. 789; renumbered §324, Pub. L. 96–300, §1(c), July 2, 1980, 94 Stat. 831.)

REFERENCES IN TEXT

Section 7624 of this title, referred to in subsec. (c), was in the original ''section 324 of this Act'', meaning section 324 of the Act July 14, 1955. Sections 324 and 325 of that Act, were renumbered sections 323 and 324, respectively, by Pub. L. 96–300, §1(b), July 2, 1980, 94 Stat. 831, and are classified to sections 7624 and 7625, respectively, of this title.

PRIOR PROVISIONS

A prior section 324 of act July 14, 1955, was renumbered section 323 by Pub. L. 96–300 and is classified to section 7624 of this title.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7625–1. Exemptions for certain territories

(a)(1) Upon petition by the governor[1] of Guam, American Samoa, the Virgin Islands, or the Commonwealth of the Northern Mariana Islands, the Administrator is authorized to exempt any person or source or class of persons or sources in such territory from any requirement under this chapter other than section 7412 of this title or any requirement under section 7410 of this title or part D[2] necessary to attain or maintain a national primary ambient air quality standard. Such exemption may be granted if the Administrator finds that compliance with such requirement is not feasible or is unreasonable due to unique geographical, meteorological, or economic factors of such territory, or such other local factors as the Administrator deems significant. Any such petition shall be considered in accordance with section 7607(d) of this title and any exemption under this subsection shall be considered final action by the Administrator for the purposes of section 7607(b) of this title.

(2) The Administrator shall promptly notify the Committees on Energy and Commerce and on Natural Resources of the House of Representatives and the Committees on Environment and Public Works and on Energy and Natural Resources of the Senate upon receipt of any petition under this subsection and of the approval or rejection of such petition and the basis for such action.

(b) Notwithstanding any other provision of this chapter, any fossil fuel fired steam electric power plant operating within Guam as of December 8, 1983, is hereby exempted from:

(1) any requirement of the new source performance standards relating to sulfur dioxide promulgated under section 7411 of this title as of December 8, 1983; and

(2) any regulation relating to sulfur dioxide standards or limitations contained in a State implementation plan approved under section 7410 of this title as of December 8, 1983: *Provided*, That such exemption shall expire eighteen months after December 8, 1983, unless the Administrator determines that such plant is making all emissions reductions practicable to prevent exceedances of the national ambient air quality standards for sulfur dioxide.

(July 14, 1955, ch. 360, title III, §325, as added Pub. L. 98–213, §11, Dec. 8, 1983, 97 Stat. 1461; amended Pub. L. 101–549, title VIII, §806, Nov. 15, 1990, 104 Stat. 2689; Pub. L. 103–437, §15(s), Nov. 2, 1994, 108 Stat. 4594.)

PRIOR PROVISIONS

A prior section 325 of act July 14, 1955, was renumbered section 326 by Pub. L. 98–213 and is classified to section 7625a of this title.

Another prior section 325 of act July 14, 1955, was renumbered section 324 by Pub. L. 96–300 and is classified to section 7625 of this title.

AMENDMENTS

1994—Subsec. (a)(2). Pub. L. 103–437 substituted ''Natural Resources'' for ''Interior and Insular Affairs'' before ''of the House''.

1990—Subsec. (a)(1). Pub. L. 101–549, which directed the insertion of ''the Virgin Islands,'' after ''American Samoa,'' in ''[s]ection 324(a)(1) of the Clean Air Act (42 U.S.C. 7625–1(a)(1))'', was executed by making the insertion in subsec. (a)(1) of this section to reflect the probable intent of Congress.

CHANGE OF NAME

Committee on Energy and Commerce of House of Representatives treated as referring to Committee on Commerce of House of Representatives by section 1(a) of Pub. L. 104–14, set out as a note preceding section 21 of Title 2, The Congress. Committee on Commerce of House of Representatives changed to Committee on Energy and Commerce of House of Representatives, and

[1] See References in Text note below.

[2] So in original. The word ''or'' probably should appear at the end of subpar. (B).

[1] So in original. Probably should be capitalized.

[2] So in original. Probably should refer to part D of subchapter I.

jurisdiction over matters relating to securities and exchanges and insurance generally transferred to Committee on Financial Services of House of Representatives by House Resolution No. 5, One Hundred Seventh Congress, Jan. 3, 2001.

§ 7625a. Statutory construction

The parenthetical cross references in any provision of this chapter to other provisions of the chapter, or other provisions of law, where the words ''relating to'' or ''pertaining to'' are used, are made only for convenience, and shall be given no legal effect.

(July 14, 1955, ch. 360, title III, § 326, as added Pub. L. 95–190, § 14(a)(84), Nov. 16, 1977, 91 Stat. 1404; renumbered § 325, Pub. L. 96–300, § 1(c), July 2, 1980, 94 Stat. 831; renumbered § 326, Pub. L. 98–213, § 11, Dec. 8, 1983, 97 Stat. 1461.)

PRIOR PROVISIONS

A prior section 326 of act July 14, 1955, was renumbered section 327 by Pub. L. 98–213 and is classified to section 7626 of this title.

§ 7626. Authorization of appropriations

(a) In general

There are authorized to be appropriated to carry out this chapter such sums as may be necessary for the 7 fiscal years commencing after November 15, 1990.

(b) Grants for planning

There are authorized to be appropriated (1) not more than $50,000,000 to carry out section 7505 of this title beginning in fiscal year 1991, to be available until expended, to develop plan revisions required by subpart 2, 3, or 4 of part D of subchapter I, and (2) not more than $15,000,000 for each of the 7 fiscal years commencing after November 15, 1990, to make grants to the States to prepare implementation plans as required by subpart 2, 3, or 4 of part D of subchapter I.

(July 14, 1955, ch. 360, title III, § 327, formerly § 325, as added Pub. L. 95–95, title III, § 315, Aug. 7, 1977, 91 Stat. 790; renumbered § 327 and amended Pub. L. 95–190, § 14(a)(83), Nov. 16, 1977, 91 Stat. 1404; renumbered § 326, Pub. L. 96–300, § 1(c), July 2, 1980, 94 Stat. 831; renumbered § 327, Pub. L. 98–213, § 11, Dec. 8, 1983, 97 Stat. 1461; Pub. L. 101–549, title VIII, § 822, Nov. 15, 1990, 104 Stat. 2699.)

PRIOR PROVISIONS

Provisions similar to those in this section were contained in section 1857*l* of this title, act July 14, 1955, ch. 360, title III, § 316, formerly § 13, as added Dec. 17, 1963, Pub. L. 88–206, § 1, 77 Stat. 401; renumbered § 306 and amended Oct. 20, 1965, Pub. L. 89–272, title I, § 101(4), (6), (7), 79 Stat. 992; Oct. 15, 1966, Pub. L. 89–675, § 2(a), 80 Stat. 954; renumbered § 309 and amended Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 506; renumbered § 316 and amended Dec. 31, 1970, Pub. L. 91–604, §§ 12(a), 13(b), 84 Stat. 1705, 1709; Apr. 9, 1973, Pub. L. 93–15, § 1(c), 87 Stat. 11; June 22, 1974, Pub. L. 93–319, § 13(c), 88 Stat. 265, prior to repeal by section 306 of Pub. L. 95–95.

AMENDMENTS

1990—Pub. L. 101–549 amended section generally, substituting present provisions for provisions authorizing specific appropriations for certain programs and periods and appropriations of $200,000,000 for fiscal years 1978 through 1981 to carry out the other programs under this chapter.

1977—Subsec. (b)(4). Pub. L. 95–190 substituted ''section 7403(a)(5)'' for ''section 7403(b)(5)''.

EFFECTIVE DATE

Section effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7627. Air pollution from Outer Continental Shelf activities

(a) Applicable requirements for certain areas

(1) In general

Not later than 12 months after November 15, 1990, following consultation with the Secretary of the Interior and the Commandant of the United States Coast Guard, the Administrator, by rule, shall establish requirements to control air pollution from Outer Continental Shelf sources located offshore of the States along the Pacific, Arctic and Atlantic Coasts (other than Outer Continental Shelf sources located offshore of the North Slope Borough of the State of Alaska), and along the United States Gulf Coast off the State of Florida eastward of longitude 87 degrees and 30 minutes (''OCS sources'') to attain and maintain Federal and State ambient air quality standards and to comply with the provisions of part C of subchapter I. For such sources located within 25 miles of the seaward boundary of such States, such requirements shall be the same as would be applicable if the source were located in the corresponding onshore area, and shall include, but not be limited to, State and local requirements for emission controls, emission limitations, offsets, permitting, monitoring, testing, and reporting. New OCS sources shall comply with such requirements on the date of promulgation and existing OCS sources shall comply on the date 24 months thereafter. The Administrator shall update such requirements as necessary to maintain consistency with onshore regulations and this chapter. The authority of this subsection shall supersede section 5(a)(8) of the Outer Continental Shelf Lands Act [43 U.S.C. 1334(a)(8)] but shall not repeal or modify any other Federal, State, or local authorities with respect to air quality. Each requirement established under this section shall be treated, for purposes of sections 7413, 7414, 7416, 7420, and 7604 of this title, as a standard under section 7411 of this title and a violation of any such requirement shall be considered a violation of section 7411(e) of this title.

(2) Exemptions

The Administrator may exempt an OCS source from a specific requirement in effect under regulations under this subsection if the Administrator finds that compliance with a pollution control technology requirement is technically infeasible or will cause an unreasonable threat to health and safety. The Administrator shall make written findings explaining the basis of any exemption issued pursuant to this subsection and shall impose another requirement equal to or as close in stringency to the original requirement as possible. The Administrator shall ensure that any

increase in emissions due to the granting of an exemption is offset by reductions in actual emissions, not otherwise required by this chapter, from the same source or other sources in the area or in the corresponding onshore area. The Administrator shall establish procedures to provide for public notice and comment on exemptions proposed pursuant to this subsection.

(3) State procedures

Each State adjacent to an OCS source included under this subsection may promulgate and submit to the Administrator regulations for implementing and enforcing the requirements of this subsection. If the Administrator finds that the State regulations are adequate, the Administrator shall delegate to that State any authority the Administrator has under this chapter to implement and enforce such requirements. Nothing in this subsection shall prohibit the Administrator from enforcing any requirement of this section.

(4) Definitions

For purposes of subsections (a) and (b)—

(A) Outer Continental Shelf

The term ''Outer Continental Shelf'' has the meaning provided by section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. 1331).

(B) Corresponding onshore area

The term ''corresponding onshore area'' means, with respect to any OCS source, the onshore attainment or nonattainment area that is closest to the source, unless the Administrator determines that another area with more stringent requirements with respect to the control and abatement of air pollution may reasonably be expected to be affected by such emissions. Such determination shall be based on the potential for air pollutants from the OCS source to reach the other onshore area and the potential of such air pollutants to affect the efforts of the other onshore area to attain or maintain any Federal or State ambient air quality standard or to comply with the provisions of part C of subchapter I.

(C) Outer Continental Shelf source

The terms ''Outer Continental Shelf source'' and ''OCS source'' include any equipment, activity, or facility which—

(i) emits or has the potential to emit any air pollutant,

(ii) is regulated or authorized under the Outer Continental Shelf Lands Act [43 U.S.C. 1331 et seq.], and

(iii) is located on the Outer Continental Shelf or in or on waters above the Outer Continental Shelf.

Such activities include, but are not limited to, platform and drill ship exploration, construction, development, production, processing, and transportation. For purposes of this subsection, emissions from any vessel servicing or associated with an OCS source, including emissions while at the OCS source or en route to or from the OCS source within 25 miles of the OCS source, shall be considered direct emissions from the OCS source.

(D) New and existing OCS sources

The term ''new OCS source'' means an OCS source which is a new source within the meaning of section 7411(a) of this title. The term ''existing OCS source'' means any OCS source other than a new OCS source.

(b) Requirements for other offshore areas

For portions of the United States Outer Continental Shelf that are adjacent to the States not covered by subsection (a) which are Texas, Louisiana, Mississippi, and Alabama or are adjacent to the North Slope Borough of the State of Alaska, the Secretary shall consult with the Administrator to assure coordination of air pollution control regulation for Outer Continental Shelf emissions and emissions in adjacent onshore areas. Concurrently with this obligation, the Secretary shall complete within 3 years of November 15, 1990, a research study examining the impacts of emissions from Outer Continental Shelf activities in such areas that fail to meet the national ambient air quality standards for either ozone or nitrogen dioxide. Based on the results of this study, the Secretary shall consult with the Administrator and determine if any additional actions are necessary. There are authorized to be appropriated such sums as may be necessary to provide funding for the study required under this section.

(c) Coastal waters

(1) The study report of section 7412(n)[1] of this title shall apply to the coastal waters of the United States to the same extent and in the same manner as such requirements apply to the Great Lakes, the Chesapeake Bay, and their tributary waters.

(2) The regulatory requirements of section 7412(n)[1] of this title shall apply to the coastal waters of the States which are subject to subsection (a) of this section, to the same extent and in the same manner as such requirements apply to the Great Lakes, the Chesapeake Bay, and their tributary waters.

(July 14, 1955, ch. 360, title III, § 328, as added Pub. L. 101–549, title VIII, § 801, Nov. 15, 1990, 104 Stat. 2685; amended Pub. L. 112–74, div. E, title IV, § 432(b), (c), Dec. 23, 2011, 125 Stat. 1048, 1049.)

REFERENCES IN TEXT

The Outer Continental Shelf Lands Act, referred to in subsec. (a)(4)(C)(ii), is act Aug. 7, 1953, ch. 345, 67 Stat. 462, as amended, which is classified generally to subchapter III (§ 1331 et seq.) of chapter 29 of Title 43, Public Lands. For complete classification of this Act to the Code, see Short Title note set out under section 1301 of Title 43 and Tables.

AMENDMENTS

2011—Subsec. (a)(1). Pub. L. 112–74, § 432(b), inserted ''(other than Outer Continental Shelf sources located offshore of the North Slope Borough of the State of Alaska)'' after ''Outer Continental Shelf sources located offshore of the States along the Pacific, Arctic and Atlantic Coasts'' and ''and this chapter'' after ''regulations''.

Subsec. (b). Pub. L. 112–74, § 432(c), struck out ''Gulf Coast'' after ''United States'' and inserted ''or are adja-

[1] So in original. Probably should be section ''7412(m)''.

cent to the North Slope Borough of the State of Alaska'' after ''Alabama''.

TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

CONGRESSIONAL STATEMENT OF PURPOSE

Pub. L. 112–74, div. E, title IV, § 432(a), Dec. 23, 2011, 125 Stat. 1048, provided that: ''It is the purpose of this section [amending this section and enacting provisions set out as a note under this section] to ensure that the energy policy of the United States focuses on the expeditious and orderly development of domestic energy resources in a manner that protects human health and the environment.''

EFFECT OF TRANSFER OF AIR QUALITY PERMITTING AUTHORITY

Pub. L. 112–74, div. E, title IV, § 432(d), Dec. 23, 2011, 125 Stat. 1049, provided that: ''The transfer of air quality permitting authority pursuant to this section [amending this section and enacting provisions set out as a note under this section] shall not invalidate or stay—

''(1) any air quality permit pending or existing as of the date of the enactment of this Act [Dec. 23, 2011]; or

''(2) any proceeding related thereto.''

§ 7628. Demonstration grant program for local governments

(a) Grant program

(1) In general

The Administrator shall establish a demonstration program under which the Administrator shall provide competitive grants to assist local governments (such as municipalities and counties), with respect to local government buildings—

(A) to deploy cost-effective technologies and practices; and

(B) to achieve operational cost savings, through the application of cost-effective technologies and practices, as verified by the Administrator.

(2) Cost sharing

(A) In general

The Federal share of the cost of an activity carried out using a grant provided under this section shall be 40 percent.

(B) Waiver of non-Federal share

The Administrator may waive up to 100 percent of the local share of the cost of any grant under this section should the Administrator determine that the community is economically distressed, pursuant to objective economic criteria established by the Administrator in published guidelines.

(3) Maximum amount

The amount of a grant provided under this subsection shall not exceed $1,000,000.

(b) Guidelines

(1) In general

Not later than 1 year after December 19, 2007, the Administrator shall issue guidelines to implement the grant program established under subsection (a).

(2) Requirements

The guidelines under paragraph (1) shall establish—

(A) standards for monitoring and verification of operational cost savings through the application of cost-effective technologies and practices reported by grantees under this section;

(B) standards for grantees to implement training programs, and to provide technical assistance and education, relating to the retrofit of buildings using cost-effective technologies and practices; and

(C) a requirement that each local government that receives a grant under this section shall achieve facility-wide cost savings, through renovation of existing local government buildings using cost-effective technologies and practices, of at least 40 percent as compared to the baseline operational costs of the buildings before the renovation (as calculated assuming a 3-year, weather-normalized average).

(c) Compliance with State and local law

Nothing in this section or any program carried out using a grant provided under this section supersedes or otherwise affects any State or local law, to the extent that the State or local law contains a requirement that is more stringent than the relevant requirement of this section.

(d) Authorization of appropriations

There is authorized to be appropriated to carry out this section $20,000,000 for each of fiscal years 2007 through 2012.

(e) Reports

(1) In general

The Administrator shall provide annual reports to Congress on cost savings achieved and actions taken and recommendations made under this section, and any recommendations for further action.

(2) Final report

The Administrator shall issue a final report at the conclusion of the program, including findings, a summary of total cost savings achieved, and recommendations for further action.

(f) Termination

The program under this section shall terminate on September 30, 2012.

(g) Definitions

In this section, the terms ''cost-effective technologies and practices'' and ''operating[1] cost savings'' shall have the meanings defined in section 17061 of this title.

(July 14, 1955, ch. 360, title III, § 329, as added Pub. L. 110–140, title IV, § 493, Dec. 19, 2007, 121 Stat. 1652.)

EFFECTIVE DATE

Section effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as a note under section 1824 of Title 2, The Congress.

[1] So in original. Probably should be ''operational''.

SUBCHAPTER IV—NOISE POLLUTION

CODIFICATION

Another title IV of act July 14, 1955, as added by Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2584, is classified to subchapter IV–A (§ 7651 et seq.) of this chapter.

§ 7641. Noise abatement

(a) Office of Noise Abatement and Control

The Administrator shall establish within the Environmental Protection Agency an Office of Noise Abatement and Control, and shall carry out through such Office a full and complete investigation and study of noise and its effect on the public health and welfare in order to (1) identify and classify causes and sources of noise, and (2) determine—

(A) effects at various levels;

(B) projected growth of noise levels in urban areas through the year 2000;

(C) the psychological and physiological effect on humans;

(D) effects of sporadic extreme noise (such as jet noise near airports) as compared with constant noise;

(E) effect on wildlife and property (including values);

(F) effect of sonic booms on property (including values); and

(G) such other matters as may be of interest in the public welfare.

(b) Investigation techniques; report and recommendations

In conducting such investigation, the Administrator shall hold public hearings, conduct research, experiments, demonstrations, and studies. The Administrator shall report the results of such investigation and study, together with his recommendations for legislation or other action, to the President and the Congress not later than one year after December 31, 1970.

(c) Abatement of noise from Federal activities

In any case where any Federal department or agency is carrying out or sponsoring any activity resulting in noise which the Administrator determines amounts to a public nuisance or is otherwise objectionable, such department or agency shall consult with the Administrator to determine possible means of abating such noise.

(July 14, 1955, ch. 360, title IV, § 402, as added Pub. L. 91–604, § 14, Dec. 31, 1970, 84 Stat. 1709.)

CODIFICATION

Another section 402 of act July 14, 1955, as added by Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2585, is classified to section 7651a of this title.

Section was formerly classified to section 1858 of this title.

§ 7642. Authorization of appropriations

There is authorized to be appropriated such amount, not to exceed $30,000,000, as may be necessary for the purposes of this subchapter.

(July 14, 1955, ch. 360, title IV, § 403, as added Pub. L. 91–604, § 14, Dec. 31, 1970, 84 Stat. 1710.)

CODIFICATION

Another section 403 of act July 14, 1955, as added by Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2589, is classified to section 7651b of this title.

Section was formerly classified to section 1858a of this title.

SUBCHAPTER IV–A—ACID DEPOSITION CONTROL

CODIFICATION

Another title IV of act July 14, 1955, as added by Pub. L. 91–604, § 14, Dec. 31, 1970, 84 Stat. 1709, is classified principally to subchapter IV (§ 7641 et seq.) of this chapter.

§ 7651. Findings and purposes

(a) Findings

The Congress finds that—

(1) the presence of acidic compounds and their precursors in the atmosphere and in deposition from the atmosphere represents a threat to natural resources, ecosystems, materials, visibility, and public health;

(2) the principal sources of the acidic compounds and their precursors in the atmosphere are emissions of sulfur and nitrogen oxides from the combustion of fossil fuels;

(3) the problem of acid deposition is of national and international significance;

(4) strategies and technologies for the control of precursors to acid deposition exist now that are economically feasible, and improved methods are expected to become increasingly available over the next decade;

(5) current and future generations of Americans will be adversely affected by delaying measures to remedy the problem;

(6) reduction of total atmospheric loading of sulfur dioxide and nitrogen oxides will enhance protection of the public health and welfare and the environment; and

(7) control measures to reduce precursor emissions from steam-electric generating units should be initiated without delay.

(b) Purposes

The purpose of this subchapter is to reduce the adverse effects of acid deposition through reductions in annual emissions of sulfur dioxide of ten million tons from 1980 emission levels, and, in combination with other provisions of this chapter, of nitrogen oxides emissions of approximately two million tons from 1980 emission levels, in the forty-eight contiguous States and the District of Columbia. It is the intent of this subchapter to effectuate such reductions by requiring compliance by affected sources with prescribed emission limitations by specified deadlines, which limitations may be met through alternative methods of compliance provided by an emission allocation and transfer system. It is also the purpose of this subchapter to encourage energy conservation, use of renewable and clean alternative technologies, and pollution prevention as a long-range strategy, consistent with the provisions of this subchapter, for reducing air pollution and other adverse impacts of energy production and use.

(July 14, 1955, ch. 360, title IV, § 401, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2584.)

CODIFICATION

Another section 401 of act July 14, 1955, as added by Pub. L. 91–604, § 14, Dec. 31, 1970, 84 Stat. 1709, is set out as a Short Title note under section 7401 of this title.

ACID DEPOSITION STANDARDS

Pub. L. 101–549, title IV, § 404, Nov. 15, 1990, 104 Stat. 2632, directed Administrator of Environmental Protection Agency, not later than 36 months after Nov. 15, 1990, to transmit to Congress a report on the feasibility and effectiveness of an acid deposition standard or standards to protect sensitive and critically sensitive aquatic and terrestrial resources.

INDUSTRIAL SO_2 EMISSIONS

Pub. L. 101–549, title IV, § 406, Nov. 15, 1990, 104 Stat. 2632, provided that:

''(a) REPORT.—Not later than January 1, 1995 and every 5 years thereafter, the Administrator of the Environmental Protection Agency shall transmit to the Congress a report containing an inventory of national annual sulfur dioxide emissions from industrial sources (as defined in title IV of the Act [42 U.S.C. 7651 et seq.]), including units subject to section 405(g)(6) of the Clean Air Act [42 U.S.C. 7651d(g)(6)], for all years for which data are available, as well as the likely trend in such emissions over the following twenty-year period. The reports shall also contain estimates of the actual emission reduction in each year resulting from promulgation of the diesel fuel desulfurization regulations under section 214 [42 U.S.C. 7548].

''(b) 5.60 MILLION TON CAP.—Whenever the inventory required by this section indicates that sulfur dioxide emissions from industrial sources, including units subject to section 405(g)(5) of the Clean Air Act [42 U.S.C. 7651d(g)(5)], may reasonably be expected to reach levels greater than 5.60 million tons per year, the Administrator of the Environmental Protection Agency shall take such actions under the Clean Air Act [42 U.S.C. 7401 et seq.] as may be appropriate to ensure that such emissions do not exceed 5.60 million tons per year. Such actions may include the promulgation of new and revised standards of performance for new sources, including units subject to section 405(g)(5) of the Clean Air Act, under section 111(b) of the Clean Air Act [42 U.S.C. 7411(b)], as well as promulgation of standards of performance for existing sources, including units subject to section 405(g)(5) of the Clean Air Act, under authority of this section. For an existing source regulated under this section, 'standard of performance' means a standard which the Administrator determines is applicable to that source and which reflects the degree of emission reduction achievable through the application of the best system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated for that category of sources.

''(c) ELECTION.—Regulations promulgated under section 405(b) of the Clean Air Act [42 U.S.C. 7651d(b)] shall not prohibit a source from electing to become an affected unit under section 410 of the Clean Air Act [42 U.S.C. 7651i].''

[For termination, effective May 15, 2000, of reporting provisions in section 406(a) of Pub. L. 101–549, set out above, see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 10th item on page 162 of House Document No. 103–7.]

SENSE OF CONGRESS ON EMISSION REDUCTIONS COSTS

Pub. L. 101–549, title IV, § 407, Nov. 15, 1990, 104 Stat. 2633, provided that: ''It is the sense of the Congress that the Clean Air Act Amendments of 1990 [Pub. L. 101–549, see Tables for classification], through the allowance program, allocates the costs of achieving the required reductions in emissions of sulfur dioxide and oxides of nitrogen among sources in the United States. Broad based taxes and emissions fees that would provide for payment of the costs of achieving required emissions reductions by any party or parties other than the sources required to achieve the reductions are undesirable.''

MONITORING OF ACID RAIN PROGRAM IN CANADA

Pub. L. 101–549, title IV, § 408, Nov. 15, 1990, 104 Stat. 2633, provided that:

''(a) REPORTS TO CONGRESS.—The Administrator of the Environmental Protection Agency, in consultation with the Secretary of State, the Secretary of Energy, and other persons the Administrator deems appropriate, shall prepare and submit a report to Congress on January 1, 1994, January 1, 1999, and January 1, 2005.

''(b) CONTENTS.—The report to Congress shall analyze the current emission levels of sulfur dioxide and nitrogen oxides in each of the provinces participating in Canada's acid rain control program, the amount of emission reductions of sulfur dioxide and oxides of nitrogen achieved by each province, the methods utilized by each province in making those reductions, the costs to each province and the employment impacts in each province of making and maintaining those reductions.

''(c) COMPLIANCE.—Beginning on January 1, 1999, the reports shall also assess the degree to which each province is complying with its stated emissions cap.''

§ 7651a. Definitions

As used in this subchapter:

(1) The term ''affected source'' means a source that includes one or more affected units.

(2) The term ''affected unit'' means a unit that is subject to emission reduction requirements or limitations under this subchapter.

(3) The term ''allowance'' means an authorization, allocated to an affected unit by the Administrator under this subchapter, to emit, during or after a specified calendar year, one ton of sulfur dioxide.

(4) The term ''baseline'' means the annual quantity of fossil fuel consumed by an affected unit, measured in millions of British Thermal Units (''mmBtu's''), calculated as follows:

(A) For each utility unit that was in commercial operation prior to January 1, 1985, the baseline shall be the annual average quantity of mmBtu's consumed in fuel during calendar years 1985, 1986, and 1987, as recorded by the Department of Energy pursuant to Form 767. For any utility unit for which such form was not filed, the baseline shall be the level specified for such unit in the 1985 National Acid Precipitation Assessment Program (NAPAP) Emissions Inventory, Version 2, National Utility Reference File (NURF) or in a corrected data base as established by the Administrator pursuant to paragraph (3).[1] For nonutility units, the baseline is the NAPAP Emissions Inventory, Version 2. The Administrator, in the Administrator's sole discretion, may exclude periods during which a unit is shutdown for a continuous period of four calendar months or longer, and make appropriate adjustments under this paragraph. Upon petition of the owner or operator of any unit, the Administrator may make appropriate baseline adjustments for accidents that caused prolonged outages.

(B) For any other nonutility unit that is not included in the NAPAP Emissions Inventory, Version 2, or a corrected data base as established by the Administrator pursuant to paragraph (3),[1] the baseline shall be the

[1] So in original. The reference to ''paragraph (3)'' probably should be to ''subparagraph (C)''.

annual average quantity, in mmBtu consumed in fuel by that unit, as calculated pursuant to a method which the administrator shall prescribe by regulation to be promulgated not later than eighteen months after November 15, 1990.

(C) The Administrator shall, upon application or on his own motion, by December 31, 1991, supplement data needed in support of this subchapter and correct any factual errors in data from which affected Phase II units' baselines or actual 1985 emission rates have been calculated. Corrected data shall be used for purposes of issuing allowances under the[2] subchapter. Such corrections shall not be subject to judicial review, nor shall the failure of the Administrator to correct an alleged factual error in such reports be subject to judicial review.

(5) The term ''capacity factor'' means the ratio between the actual electric output from a unit and the potential electric output from that unit.

(6) The term ''compliance plan'' means, for purposes of the requirements of this subchapter, either—

(A) a statement that the source will comply with all applicable requirements under this subchapter, or

(B) where applicable, a schedule and description of the method or methods for compliance and certification by the owner or operator that the source is in compliance with the requirements of this subchapter.

(7) The term ''continuous emission monitoring system'' (CEMS) means the equipment as required by section 7651k of this title, used to sample, analyze, measure, and provide on a continuous basis a permanent record of emissions and flow (expressed in pounds per million British thermal units (lbs/mmBtu), pounds per hour (lbs/hr) or such other form as the Administrator may prescribe by regulations under section 7651k of this title).

(8) The term ''existing unit'' means a unit (including units subject to section 7411 of this title) that commenced commercial operation before November 15, 1990. Any unit that commenced commercial operation before November 15, 1990, which is modified, reconstructed, or repowered after November 15, 1990, shall continue to be an existing unit for the purposes of this subchapter. For the purposes of this subchapter, existing units shall not include simple combustion turbines, or units which serve a generator with a nameplate capacity of 25MWe or less.

(9) The term ''generator'' means a device that produces electricity and which is reported as a generating unit pursuant to Department of Energy Form 860.

(10) The term ''new unit'' means a unit that commences commercial operation on or after November 15, 1990.

(11) The term ''permitting authority'' means the Administrator, or the State or local air pollution control agency, with an approved permitting program under part B[3] of title III of the Act.

(12) The term ''repowering'' means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Notwithstanding the provisions of section 7651h(a) of this title, for the purpose of this subchapter, the term ''repowering'' shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

(13) The term ''reserve'' means any bank of allowances established by the Administrator under this subchapter.

(14) The term ''State'' means one of the 48 contiguous States and the District of Columbia.

(15) The term ''unit'' means a fossil fuel-fired combustion device.

(16) The term ''actual 1985 emission rate'', for electric utility units means the annual sulfur dioxide or nitrogen oxides emission rate in pounds per million Btu as reported in the NAPAP Emissions Inventory, Version 2, National Utility Reference File. For nonutility units, the term ''actual 1985 emission rate'' means the annual sulfur dioxide or nitrogen oxides emission rate in pounds per million Btu as reported in the NAPAP Emission Inventory, Version 2.

(17)(A) The term ''utility unit'' means—

(i) a unit that serves a generator in any State that produces electricity for sale, or

(ii) a unit that, during 1985, served a generator in any State that produced electricity for sale.

(B) Notwithstanding subparagraph (A), a unit described in subparagraph (A) that—

(i) was in commercial operation during 1985, but

(ii) did not, during 1985, serve a generator in any State that produced electricity for sale shall not be a utility unit for purposes of this subchapter.

(C) A unit that cogenerates steam and electricity is not a ''utility unit'' for purposes of this subchapter unless the unit is constructed for the purpose of supplying, or commences construction after November 15, 1990, and supplies, more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale.

[2] So in original. Probably should be ''this''.

[3] See References in Text note below.

(18) The term ''allowable 1985 emissions rate'' means a federally enforceable emissions limitation for sulfur dioxide or oxides of nitrogen, applicable to the unit in 1985 or the limitation applicable in such other subsequent year as determined by the Administrator if such a limitation for 1985 does not exist. Where the emissions limitation for a unit is not expressed in pounds of emissions per million Btu, or the averaging period of that emissions limitation is not expressed on an annual basis, the Administrator shall calculate the annual equivalent of that emissions limitation in pounds per million Btu to establish the allowable 1985 emissions rate.

(19) The term ''qualifying phase I technology'' means a technological system of continuous emission reduction which achieves a 90 percent reduction in emissions of sulfur dioxide from the emissions that would have resulted from the use of fuels which were not subject to treatment prior to combustion.

(20) The term ''alternative method of compliance'' means a method of compliance in accordance with one or more of the following authorities:

(A) a substitution plan submitted and approved in accordance with subsections[4] 7651c(b) and (c) of this title;

(B) a Phase I extension plan approved by the Administrator under section 7651c(d) of this title, using qualifying phase I technology as determined by the Administrator in accordance with that section; or

(C) repowering with a qualifying clean coal technology under section 7651h of this title.

(21) The term ''commenced'' as applied to construction of any new electric utility unit means that an owner or operator has undertaken a continuous program of construction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction.

(22) The term ''commenced commercial operation'' means to have begun to generate electricity for sale.

(23) The term ''construction'' means fabrication, erection, or installation of an affected unit.

(24) The term ''industrial source'' means a unit that does not serve a generator that produces electricity, a ''nonutility unit'' as defined in this section, or a process source as defined in section 7651i(e)[5] of this title.

(25) The term ''nonutility unit'' means a unit other than a utility unit.

(26) The term ''designated representative'' means a responsible person or official authorized by the owner or operator of a unit to represent the owner or operator in matters pertaining to the holding, transfer, or disposition of allowances allocated to a unit, and the submission of and compliance with permits, permit applications, and compliance plans for the unit.

(27) The term ''life-of-the-unit, firm power contractual arrangement'' means a unit participation power sales agreement under which a utility or industrial customer reserves, or is entitled to receive, a specified amount or percentage of capacity and associated energy generated by a specified generating unit (or units) and pays its proportional amount of such unit's total costs, pursuant to a contract either—

(A) for the life of the unit;

(B) for a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or

(C) for a period equal to or greater than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit was built, with option rights to purchase or re-release some portion of the capacity and associated energy generated by the unit (or units) at the end of the period.

(28) The term ''basic Phase II allowance allocations'' means:

(A) For calendar years 2000 through 2009 inclusive, allocations of allowances made by the Administrator pursuant to section 7651b of this title and subsections (b)(1), (3), and (4); (c)(1), (2), (3), and (5); (d)(1), (2), (4), and (5); (e); (f); (g)(1), (2), (3), (4), and (5); (h)(1); (i) and (j) of section 7651d of this title.

(B) For each calendar year beginning in 2010, allocations of allowances made by the Administrator pursuant to section 7651b of this title and subsections (b)(1), (3), and (4); (c)(1), (2), (3), and (5); (d)(1), (2), (4) and (5); (e); (f); (g)(1), (2), (3), (4), and (5); (h)(1) and (3); (i) and (j) of section 7651d of this title.

(29) The term ''Phase II bonus allowance allocations'' means, for calendar year 2000 through 2009, inclusive, and only for such years, allocations made by the Administrator pursuant to section 7651b of this title, subsections (a)(2), (b)(2), (c)(4), (d)(3) (except as otherwise provided therein), and (h)(2) of section 7651d of this title, and section 7651e of this title.

(July 14, 1955, ch. 360, title IV, § 402, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2585.)

REFERENCES IN TEXT

Part B of title III of the Act, referred to in par. (11), means title III of the Clean Air Act, act July 14, 1955, ch. 360, as added, which is classified to subchapter III of this chapter, but title III does not contain parts. For provisions of the Clean Air Act relating to permits, see subchapter V (§ 7661 et seq.) of this chapter.

CODIFICATION

Another section 402 of act July 14, 1955, as added by Pub. L. 91–604, § 14, Dec. 31, 1970, 84 Stat. 1709, is classified to section 7641 of this title.

§ 7651b. Sulfur dioxide allowance program for existing and new units

(a) Allocations of annual allowances for existing and new units

(1)[1] For the emission limitation programs under this subchapter, the Administrator shall allocate annual allowances for the unit, to be

[4] So in original. Probably should be ''section''.

[5] So in original. Probably should be section ''7651i(d)''.

[1] So in original. No pars. (2) and (3) have been enacted.

held or distributed by the designated representative of the owner or operator of each affected unit at an affected source in accordance with this subchapter, in an amount equal to the annual tonnage emission limitation calculated under section 7651c, 7651d, 7651e, 7651h, or 7651i of this title except as otherwise specifically provided elsewhere in this subchapter. Except as provided in sections 7651d(a)(2), 7651d(a)(3), 7651h and 7651i of this title, beginning January 1, 2000, the Administrator shall not allocate annual allowances to emit sulfur dioxide pursuant to section 7651d of this title in such an amount as would result in total annual emissions of sulfur dioxide from utility units in excess of 8.90 million tons except that the Administrator shall not take into account unused allowances carried forward by owners and operators of affected units or by other persons holding such allowances, following the year for which they were allocated. If necessary to meeting the restrictions imposed in the preceding sentence, the Administrator shall reduce, pro rata, the basic Phase II allowance allocations for each unit subject to the requirements of section 7651d of this title. Subject to the provisions of section 7651*o* of this title, the Administrator shall allocate allowances for each affected unit at an affected source annually, as provided in paragraphs (2) and (3)[1] and section 7651g of this title. Except as provided in sections 7651h and 7651i of this title, the removal of an existing affected unit or source from commercial operation at any time after November 15, 1990 (whether before or after January 1, 1995, or January 1, 2000) shall not terminate or otherwise affect the allocation of allowances pursuant to section 7651c or 7651d of this title to which the unit is entitled. Allowances shall be allocated by the Administrator without cost to the recipient, except for allowances sold by the Administrator pursuant to section 7651*o* of this title. Not later than December 31, 1991, the Administrator shall publish a proposed list of the basic Phase II allowance allocations, the Phase II bonus allowance allocations and, if applicable, allocations pursuant to section 7651d(a)(3) of this title for each unit subject to the emissions limitation requirements of section 7651d of this title for the year 2000 and the year 2010. After notice and opportunity for public comment, but not later than December 31, 1992, the Administrator shall publish a final list of such allocations, subject to the provisions of section 7651d(a)(2) of this title. Any owner or operator of an existing unit subject to the requirements of section 7651d(b) or (c) of this title who is considering applying for an extension of the emission limitation requirement compliance deadline for that unit from January 1, 2000, until not later than December 31, 2000, pursuant to section 7651h of this title, shall notify the Administrator no later than March 31, 1991. Such notification shall be used as the basis for estimating the basic Phase II allowances under this subsection. Prior to June 1, 1998, the Administrator shall publish a revised final statement of allowance allocations, subject to the provisions of section 7651d(a)(2) of this title and taking into account the effect of any compliance date extensions granted pursuant to section 7651h of this title on such allocations. Any person who may make an election concerning the amount of allowances to be allocated to a unit or units shall make such election and so inform the Administrator not later than March 31, 1991, in the case of an election under section 7651d of this title (or June 30, 1991, in the case of an election under section 7651e of this title). If such person fails to make such election, the Administrator shall set forth for each unit owned or operated by such person, the amount of allowances reflecting the election that would, in the judgment of the Administrator, provide the greatest benefit for the owner or operator of the unit. If such person is a Governor who may make an election under section 7651e of this title and the Governor fails to make an election, the Administrator shall set forth for each unit in the State the amount of allowances reflecting the election that would, in the judgment of the Administrator, provide the greatest benefit for units in the State.

(b) Allowance transfer system

Allowances allocated under this subchapter may be transferred among designated representatives of the owners or operators of affected sources under this subchapter and any other person who holds such allowances, as provided by the allowance system regulations to be promulgated by the Administrator not later than eighteen months after November 15, 1990. Such regulations shall establish the allowance system prescribed under this section, including, but not limited to, requirements for the allocation, transfer, and use of allowances under this subchapter. Such regulations shall prohibit the use of any allowance prior to the calendar year for which the allowance was allocated, and shall provide, consistent with the purposes of this subchapter, for the identification of unused allowances, and for such unused allowances to be carried forward and added to allowances allocated in subsequent years, including allowances allocated to units subject to Phase I requirements (as described in section 7651c of this title) which are applied to emissions limitations requirements in Phase II (as described in section 7651d of this title). Transfers of allowances shall not be effective until written certification of the transfer, signed by a responsible official of each party to the transfer, is received and recorded by the Administrator. Such regulations shall permit the transfer of allowances prior to the issuance of such allowances. Recorded pre-allocation transfers shall be deducted by the Administrator from the number of allowances which would otherwise be allocated to the transferor, and added to those allowances allocated to the transferee. Pre-allocation transfers shall not affect the prohibition contained in this subsection against the use of allowances prior to the year for which they are allocated.

(c) Interpollutant trading

Not later than January 1, 1994, the Administrator shall furnish to the Congress a study evaluating the environmental and economic consequences of amending this subchapter to permit trading sulfur dioxide allowances for nitrogen oxides allowances.

(d) Allowance tracking system

(1) The Administrator shall promulgate, not later than 18 months after November 15, 1990, a

system for issuing, recording, and tracking allowances, which shall specify all necessary procedures and requirements for an orderly and competitive functioning of the allowance system. All allowance allocations and transfers shall, upon recordation by the Administrator, be deemed a part of each unit's permit requirements pursuant to section 7651g of this title, without any further permit review and revision.

(2) In order to insure electric reliability, such regulations shall not prohibit or affect temporary increases and decreases in emissions within utility systems, power pools, or utilities entering into allowance pool agreements, that result from their operations, including emergencies and central dispatch, and such temporary emissions increases and decreases shall not require transfer of allowances among units nor shall it require recordation. The owners or operators of such units shall act through a designated representative. Notwithstanding the preceding sentence, the total tonnage of emissions in any calendar year (calculated at the end thereof) from all units in such a utility system, power pool, or allowance pool agreements shall not exceed the total allowances for such units for the calendar year concerned.

(e) New utility units

After January 1, 2000, it shall be unlawful for a new utility unit to emit an annual tonnage of sulfur dioxide in excess of the number of allowances to emit held for the unit by the unit's owner or operator. Such new utility units shall not be eligible for an allocation of sulfur dioxide allowances under subsection (a)(1), unless the unit is subject to the provisions of subsection (g)(2) or (3) of section 7651d of this title. New utility units may obtain allowances from any person, in accordance with this subchapter. The owner or operator of any new utility unit in violation of this subsection shall be liable for fulfilling the obligations specified in section 7651j of this title.

(f) Nature of allowances

An allowance allocated under this subchapter is a limited authorization to emit sulfur dioxide in accordance with the provisions of this subchapter. Such allowance does not constitute a property right. Nothing in this subchapter or in any other provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. Nothing in this section relating to allowances shall be construed as affecting the application of, or compliance with, any other provision of this chapter to an affected unit or source, including the provisions related to applicable National Ambient Air Quality Standards and State implementation plans. Nothing in this section shall be construed as requiring a change of any kind in any State law regulating electric utility rates and charges or affecting any State law regarding such State regulation or as limiting State regulation (including any prudency review) under such a State law. Nothing in this section shall be construed as modifying the Federal Power Act [16 U.S.C. 791a et seq.] or as affecting the authority of the Federal Energy Regulatory Commission under that Act. Nothing in this subchapter shall be construed to interfere with or impair any program for competitive bidding for power supply in a State in which such program is established. Allowances, once allocated to a person by the Administrator, may be received, held, and temporarily or permanently transferred in accordance with this subchapter and the regulations of the Administrator without regard to whether or not a permit is in effect under subchapter V or section 7651g of this title with respect to the unit for which such allowance was originally allocated and recorded. Each permit under this subchapter and each permit issued under subchapter V for any affected unit shall provide that the affected unit may not emit an annual tonnage of sulfur dioxide in excess of the allowances held for that unit.

(g) Prohibition

It shall be unlawful for any person to hold, use, or transfer any allowance allocated under this subchapter, except in accordance with regulations promulgated by the Administrator. It shall be unlawful for any affected unit to emit sulfur dioxide in excess of the number of allowances held for that unit for that year by the owner or operator of the unit. Upon the allocation of allowances under this subchapter, the prohibition contained in the preceding sentence shall supersede any other emission limitation applicable under this subchapter to the units for which such allowances are allocated. Allowances may not be used prior to the calendar year for which they are allocated. Nothing in this section or in the allowance system regulations shall relieve the Administrator of the Administrator's permitting, monitoring and enforcement obligations under this chapter, nor relieve affected sources of their requirements and liabilities under this chapter.

(h) Competitive bidding for power supply

Nothing in this subchapter shall be construed to interfere with or impair any program for competitive bidding for power supply in a State in which such program is established.

(i) Applicability of antitrust laws

(1) Nothing in this section affects—

(A) the applicability of the antitrust laws to the transfer, use, or sale of allowances, or

(B) the authority of the Federal Energy Regulatory Commission under any provision of law respecting unfair methods of competition or anticompetitive acts or practices.

(2) As used in this section, ''antitrust laws'' means those Acts set forth in section 12 of title 15.

(j) Public Utility Holding Company Act

The acquisition or disposition of allowances pursuant to this subchapter including the issuance of securities or the undertaking of any other financing transaction in connection with such allowances shall not be subject to the provisions of the Public Utility Holding Company Act of 1935.[2]

(July 14, 1955, ch. 360, title IV, § 403, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2589.)

[2] See References in Text note below.

REFERENCES IN TEXT

The Federal Power Act, referred to in subsec. (f), is act June 10, 1920, ch. 285, 41 Stat. 1063, as amended, which is classified generally to chapter 12 (§ 791a et seq.) of Title 16, Conservation. For complete classification of this Act to the Code, see section 791a of Title 16 and Tables.

The Public Utility Holding Company Act of 1935, referred to in subsec. (j), is title I of act Aug. 26, 1935, ch. 687, 49 Stat. 803, as amended, which was classified generally to chapter 2C (§ 79 et seq.) of Title 15, Commerce and Trade, prior to repeal by Pub. L. 109–58, title XII, § 1263, Aug. 8, 2005, 119 Stat. 974. For complete classification of this Act to the Code, see Tables.

CODIFICATION

Another section 403 of act July 14, 1955, as added by Pub. L. 91–604, § 14, Dec. 31, 1970, 84 Stat. 1710, is classified to section 7642 of this title.

FOSSIL FUEL USE

Pub. L. 101–549, title IV, § 402, Nov. 15, 1990, 104 Stat. 2631, provided that:

''(a) CONTRACTS FOR HYDROELECTRIC ENERGY.—Any person who, after the date of the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], enters into a contract under which such person receives hydroelectric energy in return for the provision of electric energy by such person shall use allowances held by such person as necessary to satisfy such person's obligations under such contract.

''(b) FEDERAL POWER MARKETING ADMINISTRATION.—A Federal Power Marketing Administration shall not be subject to the provisions and requirements of this title [enacting this subchapter, amending sections 7410, 7411, and 7479 of this title, and enacting provisions set out as notes under sections 7403, 7411, and 7651 of this title] with respect to electric energy generated by hydroelectric facilities and marketed by such Power Marketing Administration. Any person who sells or provides electric energy to a Federal Power Marketing Administration shall comply with the provisions and requirements of this title.''

§ 7651c. Phase I sulfur dioxide requirements

(a) Emission limitations

(1) After January 1, 1995, each source that includes one or more affected units listed in table A is an affected source under this section. After January 1, 1995, it shall be unlawful for any affected unit (other than an eligible phase I unit under subsection (d)(2)) to emit sulfur dioxide in excess of the tonnage limitation stated as a total number of allowances in table A for phase I, unless (A) the emissions reduction requirements applicable to such unit have been achieved pursuant to subsection (b) or (d), or (B) the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions, except that, after January 1, 2000, the emissions limitations established in this section shall be superseded by those established in section 7651d of this title. The owner or operator of any unit in violation of this section shall be fully liable for such violation including, but not limited to, liability for fulfilling the obligations specified in section 7651j of this title.

(2) Not later than December 31, 1991, the Administrator shall determine the total tonnage of reductions in the emissions of sulfur dioxide from all utility units in calendar year 1995 that will occur as a result of compliance with the emissions limitation requirements of this section, and shall establish a reserve of allowances equal in amount to the number of tons determined thereby not to exceed a total of 3.50 million tons. In making such a determination, the Administrator shall compute for each unit subject to the emissions limitation requirements of this section the difference between:

(A) the product of its baseline multiplied by the lesser of each unit's allowable 1985 emissions rate and its actual 1985 emissions rate, divided by 2,000, and

(B) the product of each unit's baseline multiplied by 2.50 lbs/mmBtu divided by 2,000,

and sum the computations. The Administrator shall adjust the foregoing calculation to reflect projected calendar year 1995 utilization of the units subject to the emissions limitations of this subchapter that the Administrator finds would have occurred in the absence of the imposition of such requirements. Pursuant to subsection (d), the Administrator shall allocate allowances from the reserve established hereinunder until the earlier of such time as all such allowances in the reserve are allocated or December 31, 1999.

(3) In addition to allowances allocated pursuant to paragraph (1), in each calendar year beginning in 1995 and ending in 1999, inclusive, the Administrator shall allocate for each unit on Table A that is located in the States of Illinois, Indiana, or Ohio (other than units at Kyger Creek, Clifty Creek and Joppa Steam), allowances in an amount equal to 200,000 multiplied by the unit's pro rata share of the total number of allowances allocated for all units on Table A in the 3 States (other than units at Kyger Creek, Clifty Creek, and Joppa Steam) pursuant to paragraph (1). Such allowances shall be excluded from the calculation of the reserve under paragraph (2).

(b) Substitutions

The owner or operator of an affected unit under subsection (a) may include in its section 7651g of this title permit application and proposed compliance plan a proposal to reassign, in whole or in part, the affected unit's sulfur dioxide reduction requirements to any other unit(s) under the control of such owner or operator. Such proposal shall specify—

(1) the designation of the substitute unit or units to which any part of the reduction obligations of subsection (a) shall be required, in addition to, or in lieu of, any original affected units designated under such subsection;

(2) the original affected unit's baseline, the actual and allowable 1985 emissions rate for sulfur dioxide, and the authorized annual allowance allocation stated in table A;

(3) calculation of the annual average tonnage for calendar years 1985, 1986, and 1987, emitted by the substitute unit or units, based on the baseline for each unit, as defined in section 7651a(d)[1] of this title, multiplied by the lesser of the unit's actual or allowable 1985 emissions rate;

(4) the emissions rates and tonnage limitations that would be applicable to the original and substitute affected units under the substitution proposal;

[1] So in original. Probably should be section ''7651a(4)''.

(5) documentation, to the satisfaction of the Administrator, that the reassigned tonnage limits will, in total, achieve the same or greater emissions reduction than would have been achieved by the original affected unit and the substitute unit or units without such substitution; and

(6) such other information as the Administrator may require.

(c) Administrator's action on substitution proposals

(1) The Administrator shall take final action on such substitution proposal in accordance with section 7651g(c) of this title if the substitution proposal fulfills the requirements of this subsection. The Administrator may approve a substitution proposal in whole or in part and with such modifications or conditions as may be consistent with the orderly functioning of the allowance system and which will ensure the emissions reductions contemplated by this subchapter. If a proposal does not meet the requirements of subsection (b), the Administrator shall disapprove it. The owner or operator of a unit listed in table A shall not substitute another unit or units without the prior approval of the Administrator.

(2) Upon approval of a substitution proposal, each substitute unit, and each source with such unit, shall be deemed affected under this subchapter, and the Administrator shall issue a permit to the original and substitute affected source and unit in accordance with the approved substitution plan and section 7651g of this title. The Administrator shall allocate allowances for the original and substitute affected units in accordance with the approved substitution proposal pursuant to section 7651b of this title. It shall be unlawful for any source or unit that is allocated allowances pursuant to this section to emit sulfur dioxide in excess of the emissions limitation provided for in the approved substitution permit and plan unless the owner or operator of each unit governed by the permit and approved substitution plan holds allowances to emit not less than the units[2] total annual emissions. The owner or operator of any original or substitute affected unit operated in violation of this subsection shall be fully liable for such violation, including liability for fulfilling the obligations specified in section 7651j of this title. If a substitution proposal is disapproved, the Administrator shall allocate allowances to the original affected unit or units in accordance with subsection (a).

(d) Eligible phase I extension units

(1) The owner or operator of any affected unit subject to an emissions limitation requirement under this section may petition the Administrator in its permit application under section 7651g of this title for an extension of 2 years of the deadline for meeting such requirement, provided that the owner or operator of any such unit holds allowances to emit not less than the unit's total annual emissions for each of the 2 years of the period of extension. To qualify for such an extension, the affected unit must either employ a qualifying phase I technology, or transfer its phase I emissions reduction obligation to a unit employing a qualifying phase I technology. Such transfer shall be accomplished in accordance with a compliance plan, submitted and approved under section 7651g of this title, that shall govern operations at all units included in the transfer, and that specifies the emissions reduction requirements imposed pursuant to this subchapter.

(2) Such extension proposal shall—

(A) specify the unit or units proposed for designation as an eligible phase I extension unit;

(B) provide a copy of an executed contract, which may be contingent upon the Administrator approving the proposal, for the design engineering, and construction of the qualifying phase I technology for the extension unit, or for the unit or units to which the extension unit's emission reduction obligation is to be transferred;

(C) specify the unit's or units' baseline, actual 1985 emissions rate, allowable 1985 emissions rate, and projected utilization for calendar years 1995 through 1999;

(D) require CEMS on both the eligible phase I extension unit or units and the transfer unit or units beginning no later than January 1, 1995; and

(E) specify the emission limitation and number of allowances expected to be necessary for annual operation after the qualifying phase I technology has been installed.

(3) The Administrator shall review and take final action on each extension proposal in order of receipt, consistent with section 7651g of this title, and for an approved proposal shall designate the unit or units as an eligible phase I extension unit. The Administrator may approve an extension proposal in whole or in part, and with such modifications or conditions as may be necessary, consistent with the orderly functioning of the allowance system, and to ensure the emissions reductions contemplated by the[3] subchapter.

(4) In order to determine the number of proposals eligible for allocations from the reserve under subsection (a)(2) and the number of allowances remaining available after each proposal is acted upon, the Administrator shall reduce the total number of allowances remaining available in the reserve by the number of allowances calculated according to subparagraphs (A), (B) and (C) until either no allowances remain available in the reserve for further allocation or all approved proposals have been acted upon. If no allowances remain available in the reserve for further allocation before all proposals have been acted upon by the Administrator, any pending proposals shall be disapproved. The Administrator shall calculate allowances equal to—

(A) the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or the projected emissions tonnage for calendar year 1995 of each eligible phase I extension unit, as designated under paragraph (3), and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000;

[2] So in original. Probably should be ''unit's''.

[3] So in original. Probably should be ''this''.

(B) the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or the projected emissions tonnage for calendar year 1996 of each eligible phase I extension unit, as designated under paragraph (3), and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000; and

(C) the amount by which (i) the product of each unit's baseline multiplied by an emission rate of 1.20 lbs/mmBtu, divided by 2,000, exceeds (ii) the tonnage level specified under subparagraph (E) of paragraph (2) of this subsection multiplied by a factor of 3.

(5) Each eligible Phase I extension unit shall receive allowances determined under subsection (a)(1) or (c) of this section. In addition, for calendar year 1995, the Administrator shall allocate to each eligible Phase I extension unit, from the allowance reserve created pursuant to subsection (a)(2), allowances equal to the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or its projected emissions tonnage for calendar year 1995 and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000. In calendar year 1996, the Administrator shall allocate for each eligible unit, from the allowance reserve created pursuant to subsection (a)(2) of this section, allowances equal to the difference between the lesser of the average annual emissions in calendar years 1988 and 1989 or its projected emissions tonnage for calendar year 1996 and the product of the unit's baseline multiplied by an emission rate of 2.50 lbs/mmBtu, divided by 2,000. It shall be unlawful for any source or unit subject to an approved extension plan under this subsection to emit sulfur dioxide in excess of the emissions limitations provided for in the permit and approved extension plan, unless the owner or operator of each unit governed by the permit and approved plan holds allowances to emit not less than the unit's total annual emissions.

(6) In addition to allowances specified in paragraph (5), the Administrator shall allocate for each eligible Phase I extension unit employing qualifying Phase I technology, for calendar years 1997, 1998, and 1999, additional allowances, from any remaining allowances in the reserve created pursuant to subsection (a)(2), following the reduction in the reserve provided for in paragraph (4), not to exceed the amount by which (A) the product of each eligible unit's baseline times an emission rate of 1.20 lbs/mmBtu, divided by 2,000, exceeds (B) the tonnage level specified under subparagraph (E) of paragraph (2) of this subsection.

(7) After January 1, 1997, in addition to any liability under this chapter, including under section 7651j of this title, if any eligible phase I extension unit employing qualifying phase I technology or any transfer unit under this subsection emits sulfur dioxide in excess of the annual tonnage limitation specified in the extension plan, as approved in paragraph (3) of this subsection, the Administrator shall, in the calendar year following such excess, deduct allowances equal to the amount of such excess from such unit's annual allowance allocation.

(e) Allocation of allowances

(1) In the case of a unit that receives authorization from the Governor of the State in which such unit is located to make reductions in the emissions of sulfur dioxide prior to calendar year 1995 and that is part of a utility system that meets the following requirements: (A) the total coal-fired generation within the utility system as a percentage of total system generation decreased by more than 20 percent between January 1, 1980, and December 31, 1985; and (B) the weighted capacity factor of all coal-fired units within the utility system averaged over the period from January 1, 1985, through December 31, 1987, was below 50 percent, the Administrator shall allocate allowances under this paragraph for the unit pursuant to this subsection. The Administrator shall allocate allowances for a unit that is an affected unit pursuant to section 7651d of this title (but is not also an affected unit under this section) and part of a utility system that includes 1 or more affected units under section 7651d of this title for reductions in the emissions of sulfur dioxide made during the period 1995–1999 if the unit meets the requirements of this subsection and the requirements of the preceding sentence, except that for the purposes of applying this subsection to any such unit, the prior year concerned as specified below, shall be any year after January 1, 1995 but prior to January 1, 2000.

(2) In the case of an affected unit under this section described in subparagraph (A),[4] the allowances allocated under this subsection for early reductions in any prior year may not exceed the amount which (A) the product of the unit's baseline multiplied by the unit's 1985 actual sulfur dioxide emission rate (in lbs. per mmBtu), divided by 2,000, exceeds (B) the allowances specified for such unit in Table A. In the case of an affected unit under section 7651d of this title described in subparagraph (A),[4] the allowances awarded under this subsection for early reductions in any prior year may not exceed the amount by which (i) the product of the quantity of fossil fuel consumed by the unit (in mmBtu) in the prior year multiplied by the lesser of 2.50 or the most stringent emission rate (in lbs. per mmBtu) applicable to the unit under the applicable implementation plan, divided by 2,000, exceeds (ii) the unit's actual tonnage of sulfur dioxide emission for the prior year concerned. Allowances allocated under this subsection for units referred to in subparagraph (A)[4] may be allocated only for emission reductions achieved as a result of physical changes or changes in the method of operation made after November 15, 1990, including changes in the type or quality of fossil fuel consumed.

(3) In no event shall the provisions of this paragraph[5] be interpreted as an event of force majeur[6] or a commercial impractibility[7] or in any other way as a basis for excused nonperformance by a utility system under a coal sales contract in effect before November 15, 1990.

[4] So in original. Probably should be "paragraph (1)".
[5] So in original. Probably should be "subsection".
[6] So in original. Probably should be "majeure".
[7] So in original. Probably should be "impracticability".

TABLE A.—AFFECTED SOURCES AND UNITS IN PHASE I AND THEIR SULFUR DIOXIDE ALLOWANCES (TONS)

State	Plant Name	Generator	Phase I Allowances
Alabama	Colbert	1	13,570
		2	15,310
		3	15,400
		4	15,410
		5	37,180
	E.C. Gaston	1	18,100
		2	18,540
		3	18,310
		4	19,280
		5	59,840
Florida	Big Bend	1	28,410
		2	27,100
		3	26,740
	Crist	6	19,200
		7	31,680
Georgia	Bowen	1	56,320
		2	54,770
		3	71,750
		4	71,740
	Hammond	1	8,780
		2	9,220
		3	8,910
		4	37,640
	J. McDonough	1	19,910
		2	20,600
	Wansley	1	70,770
		2	65,430
	Yates	1	7,210
		2	7,040
		3	6,950
		4	8,910
		5	9,410
		6	24,760
		7	21,480
Illinois	Baldwin	1	42,010
		2	44,420
		3	42,550
	Coffeen	1	11,790
		2	35,670
	Grand Tower	4	5,910
	Hennepin	2	18,410
	Joppa Steam	1	12,590
		2	10,770
		3	12,270
		4	11,360
		5	11,420
		6	10,620
	Kincaid	1	31,530
		2	33,810
	Meredosia	3	13,890
	Vermilion	2	8,880
Indiana	Bailly	7	11,180
		8	15,630
	Breed	1	18,500
	Cayuga	1	33,370
		2	34,130
	Clifty Creek	1	20,150
		2	19,810
		3	20,410
		4	20,080
		5	19,360
		6	20,380
	E. W. Stout	5	3,880
		6	4,770
		7	23,610
	F. B. Culley	2	4,290
		3	16,970
	F. E. Ratts	1	8,330
		2	8,480
	Gibson	1	40,400
		2	41,010
		3	41,080
		4	40,320

TABLE A.—AFFECTED SOURCES AND UNITS IN PHASE I AND THEIR SULFUR DIOXIDE ALLOWANCES (TONS)—CONTINUED

State	Plant Name	Generator	Phase I Allowances
	H. T. Pritchard	6	5,770
	Michigan City	12	23,310
	Petersburg	1	16,430
		2	32,380
	R. Gallagher	1	6,490
		2	7,280
		3	6,530
		4	7,650
	Tanners Creek	4	24,820
	Wabash River	1	4,000
		2	2,860
		3	3,750
		5	3,670
		6	12,280
	Warrick	4	26,980
Iowa	Burlington	1	10,710
	Des Moines	7	2,320
	George Neal	1	1,290
	M.L. Kapp	2	13,800
	Prairie Creek	4	8,180
	Riverside	5	3,990
Kansas	Quindaro	2	4,220
Kentucky	Coleman	1	11,250
		2	12,840
		3	12,340
	Cooper	1	7,450
		2	15,320
	E.W. Brown	1	7,110
		2	10,910
		3	26,100
	Elmer Smith	1	6,520
		2	14,410
	Ghent	1	28,410
	Green River	4	7,820
	H.L. Spurlock	1	22,780
	Henderson II	1	13,340
		2	12,310
	Paradise	3	59,170
	Shawnee	10	10,170
Maryland	Chalk Point	1	21,910
		2	24,330
	C. P. Crane	1	10,330
		2	9,230
	Morgantown	1	35,260
		2	38,480
Michigan	J. H. Campbell	1	19,280
		2	23,060
Minnesota	High Bridge	6	4,270
Mississippi	Jack Watson	4	17,910
		5	36,700
Missouri	Asbury	1	16,190
	James River	5	4,850
	Labadie	1	40,110
		2	37,710
		3	40,310
		4	35,940
	Montrose	1	7,390
		2	8,200
		3	10,090
	New Madrid	1	28,240
		2	32,480
	Sibley	3	15,580
	Sioux	1	22,570
		2	23,690
	Thomas Hill	1	10,250
		2	19,390
New Hampshire	Merrimack	1	10,190
		2	22,000
New Jersey	B.L. England	1	9,060
		2	11,720
New York	Dunkirk	3	12,600
		4	14,060

TABLE A.—AFFECTED SOURCES AND UNITS IN PHASE I AND THEIR SULFUR DIOXIDE ALLOWANCES (TONS)—CONTINUED

State	Plant Name	Generator	Phase I Allowances
	Greenidge	4	7,540
	Milliken	1	11,170
		2	12,410
	Northport	1	19,810
		2	24,110
		3	26,480
	Port Jefferson	3	10,470
		4	12,330
Ohio	Ashtabula	5	16,740
	Avon Lake	8	11,650
		9	30,480
	Cardinal	1	34,270
		2	38,320
	Conesville	1	4,210
		2	4,890
		3	5,500
		4	48,770
	Eastlake	1	7,800
		2	8,640
		3	10,020
		4	14,510
		5	34,070
	Edgewater	4	5,050
	Gen. J.M. Gavin	1	79,080
		2	80,560
	Kyger Creek	1	19,280
		2	18,560
		3	17,910
		4	18,710
		5	18,740
	Miami Fort	5	760
		6	11,380
		7	38,510
	Muskingum River	1	14,880
		2	14,170
		3	13,950
		4	11,780
		5	40,470
	Niles	1	6,940
		2	9,100
	Picway	5	4,930
	R.E. Burger	3	6,150
		4	10,780
		5	12,430
	W.H. Sammis	5	24,170
		6	39,930
		7	43,220
	W.C. Beckjord	5	8,950
		6	23,020
Pennsylvania	Armstrong	1	14,410
		2	15,430
	Brunner Island	1	27,760
		2	31,100
		3	53,820
	Cheswick	1	39,170
	Conemaugh	1	59,790
		2	66,450
	Hatfield's Ferry	1	37,830
		2	37,320
		3	40,270
	Martins Creek	1	12,660
		2	12,820
	Portland	1	5,940
		2	10,230
	Shawville	1	10,320
		2	10,320
		3	14,220
		4	14,070
	Sunbury	3	8,760
		4	11,450

TABLE A.—AFFECTED SOURCES AND UNITS IN PHASE I AND THEIR SULFUR DIOXIDE ALLOWANCES (TONS)—CONTINUED

State	Plant Name	Generator	Phase I Allowances
Tennessee	Allen	1	15,320
		2	16,770
		3	15,670
	Cumberland	1	86,700
		2	94,840
	Gallatin	1	17,870
		2	17,310
		3	20,020
		4	21,260
	Johnsonville	1	7,790
		2	8,040
		3	8,410
		4	7,990
		5	8,240
		6	7,890
		7	8,980
		8	8,700
		9	7,080
		10	7,550
West Virginia	Albright	3	12,000
	Fort Martin	1	41,590
		2	41,200
	Harrison	1	48,620
		2	46,150
		3	41,500
	Kammer	1	18,740
		2	19,460
		3	17,390
	Mitchell	1	43,980
		2	45,510
	Mount Storm	1	43,720
		2	35,580
		3	42,430
Wisconsin	Edgewater	4	24,750
	La Crosse/Genoa	3	22,700
	Nelson Dewey	1	6,010
		2	6,680
	N. Oak Creek	1	5,220
		2	5,140
		3	5,370
		4	6,320
	Pulliam	8	7,510
	S. Oak Creek	5	9,670
		6	12,040
		7	16,180
		8	15,790

(f) Energy conservation and renewable energy

(1) Definitions

As used in this subsection:

(A) Qualified energy conservation measure

The term ''qualified energy conservation measure'' means a cost effective measure, as identified by the Administrator in consultation with the Secretary of Energy, that increases the efficiency of the use of electricity provided by an electric utility to its customers.

(B) Qualified renewable energy

The term ''qualified renewable energy'' means energy derived from biomass, solar, geothermal, or wind as identified by the Administrator in consultation with the Secretary of Energy.

(C) Electric utility

The term ''electric utility'' means any person, State agency, or Federal agency, which sells electric energy.

(2) Allowances for emissions avoided through energy conservation and renewable energy

(A) In general

The regulations under paragraph (4) of this subsection shall provide that for each ton of sulfur dioxide emissions avoided by an electric utility, during the applicable period, through the use of qualified energy conservation measures or qualified renewable energy, the Administrator shall allocate a single allowance to such electric utility, on a first-come-first-served basis from the Conservation and Renewable Energy Reserve established under subsection (g), up to a total of 300,000 allowances for allocation from such Reserve.

(B) Requirements for issuance

The Administrator shall allocate allowances to an electric utility under this subsection only if all of the following requirements are met:

(i) Such electric utility is paying for the qualified energy conservation measures or qualified renewable energy directly or through purchase from another person.

(ii) The emissions of sulfur dioxide avoided through the use of qualified energy conservation measures or qualified renewable energy are quantified in accordance with regulations promulgated by the Administrator under this subsection.

(iii)(I) Such electric utility has adopted and is implementing a least cost energy conservation and electric power plan which evaluates a range of resources, including new power supplies, energy conservation, and renewable energy resources, in order to meet expected future demand at the lowest system cost.

(II) The qualified energy conservation measures or qualified renewable energy, or both, are consistent with that plan.

(III) Electric utilities subject to the jurisdiction of a State regulatory authority must have such plan approved by such authority. For electric utilities not subject to the jurisdiction of a State regulatory authority such plan shall be approved by the entity with rate-making authority for such utility.

(iv) In the case of qualified energy conservation measures undertaken by a State regulated electric utility, the Secretary of Energy certifies that the State regulatory authority with jurisdiction over the electric rates of such electric utility has established rates and charges which ensure that the net income of such electric utility after implementation of specific cost effective energy conservation measures is at least as high as such net income would have been if the energy conservation measures had not been implemented. Upon the date of any such certification by the Secretary of Energy, all allowances which, but for this paragraph, would have been allocated under subparagraph (A) before such date, shall be allocated to the electric utility. This clause is not a requirement for qualified renewable energy.

(v) Such utility or any subsidiary of the utility's holding company owns or operates at least one affected unit.

(C) Period of applicability

Allowances under this subsection shall be allocated only with respect to kilowatt hours of electric energy saved by qualified energy conservation measures or generated by qualified renewable energy after January 1, 1992 and before the earlier of (i) December 31, 2000, or (ii) the date on which any electric utility steam generating unit owned or operated by the electric utility to which the allowances are allocated becomes subject to this subchapter (including those sources that elect to become affected by this subchapter, pursuant to section 7651i of this title).

(D) Determination of avoided emissions

(i)[8] Application

In order to receive allowances under this subsection, an electric utility shall make an application which—

(I) designates the qualified energy conservation measures implemented and the qualified renewable energy sources used for purposes of avoiding emissions,[9]

(II) calculates, in accordance with subparagraphs (F) and (G), the number of tons of emissions avoided by reason of the implementation of such measures or the use of such renewable energy sources; and

(III) demonstrates that the requirements of subparagraph (B) have been met.

Such application for allowances by a State-regulated electric utility shall require approval by the State regulatory authority with jurisdiction over such electric utility. The authority shall review the application for accuracy and compliance with this subsection and the rules under this subsection. Electric utilities whose retail rates are not subject to the jurisdiction of a State regulatory authority shall apply directly to the Administrator for such approval.

(E) Avoided emissions from qualified energy conservation measures

For the purposes of this subsection, the emission tonnage deemed avoided by reason of the implementation of qualified energy conservation measures for any calendar year shall be a tonnage equal to the product of multiplying—

(i) the kilowatt hours that would otherwise have been supplied by the utility during such year in the absence of such qualified energy conservation measures, by

[8] So in original. There is no cl. (ii).

[9] So in original. The comma probably should be a semicolon.

(ii) 0.004,

and dividing by 2,000.

(F) Avoided emissions from the use of qualified renewable energy

The emissions tonnage deemed avoided by reason of the use of qualified renewable energy by an electric utility for any calendar year shall be a tonnage equal to the product of multiplying—

(i) the actual kilowatt hours generated by, or purchased from, qualified renewable energy, by

(ii) 0.004,

and dividing by 2,000.

(G) Prohibitions

(i) No allowances shall be allocated under this subsection for the implementation of programs that are exclusively informational or educational in nature.

(ii) No allowances shall be allocated for energy conservation measures or renewable energy that were operational before January 1, 1992.

(3) Savings provision

Nothing in this subsection precludes a State or State regulatory authority from providing additional incentives to utilities to encourage investment in demand-side resources.

(4) Regulations

Not later than 18 months after November 15, 1990, and in conjunction with the regulations required to be promulgated under subsections (b) and (c), the Administrator shall, in consultation with the Secretary of Energy, promulgate regulations under this subsection. Such regulations shall list energy conservation measures and renewable energy sources which may be treated as qualified energy conservation measures and qualified renewable energy for purposes of this subsection. Allowances shall only be allocated if all requirements of this subsection and the rules promulgated to implement this subsection are complied with. The Administrator shall review the determinations of each State regulatory authority under this subsection to encourage consistency from electric utility to electric utility and from State to State in accordance with the Administrator's rules. The Administrator shall publish the findings of this review no less than annually.

(g) Conservation and Renewable Energy Reserve

The Administrator shall establish a Conservation and Renewable Energy Reserve under this subsection. Beginning on January 1, 1995, the Administrator may allocate from the Conservation and Renewable Energy Reserve an amount equal to a total of 300,000 allowances for emissions of sulfur dioxide pursuant to section 7651b of this title. In order to provide 300,000 allowances for such reserve, in each year beginning in calendar year 2000 and until calendar year 2009, inclusive, the Administrator shall reduce each unit's basic Phase II allowance allocation on the basis of its pro rata share of 30,000 allowances. If allowances remain in the reserve after January 2, 2010, the Administrator shall allocate such allowances for affected units under section 7651d of this title on a pro rata basis. For purposes of this subsection, for any unit subject to the emissions limitation requirements of section 7651d of this title, the term ''pro rata basis'' refers to the ratio which the reductions made in such unit's allowances in order to establish the reserve under this subsection bears to the total of such reductions for all such units.

(h) Alternative allowance allocation for units in certain utility systems with optional baseline

(1) Optional baseline for units in certain systems

In the case of a unit subject to the emissions limitation requirements of this section which (as of November 15, 1990)—

(A) has an emission rate below 1.0 lbs/mmBtu,

(B) has decreased its sulfur dioxide emissions rate by 60 percent or greater since 1980, and

(C) is part of a utility system which has a weighted average sulfur dioxide emissions rate for all fossil fueled-fired units below 1.0 lbs/mmBtu,

at the election of the owner or operator of such unit, the unit's baseline may be calculated (i) as provided under section 7651a(d)[10] of this title, or (ii) by utilizing the unit's average annual fuel consumption at a 60 percent capacity factor. Such election shall be made no later than March 1, 1991.

(2) Allowance allocation

Whenever a unit referred to in paragraph (1) elects to calculate its baseline as provided in clause (ii) of paragraph (1), the Administrator shall allocate allowances for the unit pursuant to section 7651b(a)(1) of this title, this section, and section 7651d of this title (as basic Phase II allowance allocations) in an amount equal to the baseline selected multiplied by the lower of the average annual emission rate for such unit in 1989, or 1.0 lbs./mmBtu. Such allowance allocation shall be in lieu of any allocation of allowances under this section and section 7651d of this title.

(July 14, 1955, ch. 360, title IV, § 404, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2592.)

§ 7651d. Phase II sulfur dioxide requirements

(a) Applicability

(1) After January 1, 2000, each existing utility unit as provided below is subject to the limitations or requirements of this section. Each utility unit subject to an annual sulfur dioxide tonnage emission limitation under this section is an affected unit under this subchapter. Each source that includes one or more affected units is an affected source. In the case of an existing unit that was not in operation during calendar year 1985, the emission rate for a calendar year after 1985, as determined by the Administrator, shall be used in lieu of the 1985 rate. The owner or operator of any unit operated in violation of this section shall be fully liable under this chap-

[10] So in original. Probably should be section ''7651a(4)''.

ter for fulfilling the obligations specified in section 7651j of this title.

(2) In addition to basic Phase II allowance allocations, in each year beginning in calendar year 2000 and ending in calendar year 2009, inclusive, the Administrator shall allocate up to 530,000 Phase II bonus allowances pursuant to subsections (b)(2), (c)(4), (d)(3)(A) and (B), and (h)(2) of this section and section 7651e of this title. Not later than June 1, 1998, the Administrator shall calculate, for each unit granted an extension pursuant to section 7651h of this title the difference between (A) the number of allowances allocated for the unit in calendar year 2000, and (B) the product of the unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2000, and sum the computations. In each year, beginning in calendar year 2000 and ending in calendar year 2009, inclusive, the Administrator shall deduct from each unit's basic Phase II allowance allocation its pro rata share of 10 percent of the sum calculated pursuant to the preceding sentence.

(3) In addition to basic Phase II allowance allocations and Phase II bonus allowance allocations, beginning January 1, 2000, the Administrator shall allocate for each unit listed on Table A in section 7651c of this title (other than units at Kyger Creek, Clifty Creek, and Joppa Steam) and located in the States of Illinois, Indiana, Ohio, Georgia, Alabama, Missouri, Pennsylvania, West Virginia, Kentucky, or Tennessee allowances in an amount equal to 50,000 multiplied by the unit's pro rata share of the total number of basic allowances allocated for all units listed on Table A (other than units at Kyger Creek, Clifty Creek, and Joppa Steam). Allowances allocated pursuant to this paragraph shall not be subject to the 8,900,000 ton limitation in section 7651b(a) of this title.

(b) Units equal to, or above, 75 MWe and 1.20 lbs/mmBtu

(1) Except as otherwise provided in paragraph (3), after January 1, 2000, it shall be unlawful for any existing utility unit that serves a generator with nameplate capacity equal to, or greater, than 75 MWe and an actual 1985 emission rate equal to or greater than 1.20 lbs/mmBtu to exceed an annual sulfur dioxide tonnage emission limitation equal to the product of the unit's baseline multiplied by an emission rate equal to 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) with an actual 1985 emissions rate greater than 1.20 lbs/mmBtu and less than 2.50 lbs/mmBtu and a baseline capacity factor of less than 60 percent, allowances from the reserve created pursuant to subsection (a)(2) in an amount equal to 1.20 lbs/mmBtu multiplied by 50 percent of the difference, on a Btu basis, between the unit's baseline and the unit's fuel consumption at a 60 percent capacity factor.

(3) After January 1, 2000, it shall be unlawful for any existing utility unit with an actual 1985 emissions rate equal to or greater than 1.20 lbs/mmBtu whose annual average fuel consumption during 1985, 1986, and 1987 on a Btu basis exceeded 90 percent in the form of lignite coal which is located in a State in which, as of July 1, 1989, no county or portion of a county was designated nonattainment under section 7407 of this title for any pollutant subject to the requirements of section 7409 of this title to exceed an annual sulfur dioxide tonnage limitation equal to the product of the unit's baseline multiplied by the lesser of the unit's actual 1985 emissions rate or its allowable 1985 emissions rate, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(4) After January 1, 2000, the Administrator shall allocate annually for each unit, subject to the emissions limitation requirements of paragraph (1), which is located in a State with an installed electrical generating capacity of more than 30,000,000 kw in 1988 and for which was issued a prohibition order or a proposed prohibition order (from burning oil), which unit subsequently converted to coal between January 1, 1980 and December 31, 1985, allowances equal to the difference between (A) the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of its actual or allowable emissions rate during the first full calendar year after conversion, divided by 2,000, and (B) the number of allowances allocated for the unit pursuant to paragraph (1): *Provided*, That the number of allowances allocated pursuant to this paragraph shall not exceed an annual total of five thousand. If necessary to meeting the restriction imposed in the preceding sentence the Administrator shall reduce, pro rata, the annual allowances allocated for each unit under this paragraph.

(c) Coal or oil-fired units below 75 MWe and above 1.20 lbs/mmBtu

(1) Except as otherwise provided in paragraph (3), after January 1, 2000, it shall be unlawful for a coal or oil-fired existing utility unit that serves a generator with nameplate capacity of less than 75 MWe and an actual 1985 emission rate equal to, or greater than, 1.20 lbs/mmBtu and which is a unit owned by a utility operating company whose aggregate nameplate fossil fuel steam-electric capacity is, as of December 31, 1989, equal to, or greater than, 250 MWe to exceed an annual sulfur dioxide emissions limitation equal to the product of the unit's baseline multiplied by an emission rate equal to 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) After January 1, 2000, it shall be unlawful for a coal or oil-fired existing utility unit that serves a generator with nameplate capacity of less than 75 MWe and an actual 1985 emission rate equal to, or greater than, 1.20 lbs/mmBtu (excluding units subject to section 7411 of this title or to a federally enforceable emissions lim-

itation for sulfur dioxide equivalent to an annual rate of less than 1.20 lbs/mmBtu) and which is a unit owned by a utility operating company whose aggregate nameplate fossil fuel steam-electric capacity is, as of December 31, 1989, less than 250 MWe, to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's baseline multiplied by the lesser of its actual 1985 emissions rate or its allowable 1985 emissions rate, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(3) After January 1, 2000, it shall be unlawful for any existing utility unit with a nameplate capacity below 75 MWe and an actual 1985 emissions rate equal to, or greater than, 1.20 lbs/mmBtu which became operational on or before December 31, 1965, which is owned by a utility operating company with, as of December 31, 1989, a total fossil fuel steam-electric generating capacity greater than 250 MWe, and less than 450 MWe which serves fewer than 78,000 electrical customers as of November 15, 1990, to exceed an annual sulfur dioxide emissions tonnage limitation equal to the product of its baseline multiplied by the lesser of its actual or allowable 1985 emission rate, divided by 2,000, unless the owner or operator holds allowances to emit not less than the units[1] total annual emissions. After January 1, 2010, it shall be unlawful for each unit subject to the emissions limitation requirements of this paragraph to exceed an annual emissions tonnage limitation equal to the product of its baseline multiplied by an emissions rate of 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator holds allowances to emit not less than the unit's total annual emissions.

(4) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, inclusive, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) with an actual 1985 emissions rate equal to, or greater than, 1.20 lbs/mmBtu and less than 2.50 lbs/mmBtu and a baseline capacity factor of less than 60 percent, allowances from the reserve created pursuant to subsection (a)(2) in an amount equal to 1.20 lbs/mmBtu multiplied by 50 percent of the difference, on a Btu basis, between the unit's baseline and the unit's fuel consumption at a 60 percent capacity factor.

(5) After January 1, 2000, it shall be unlawful for any existing utility unit with a nameplate capacity below 75 MWe and an actual 1985 emissions rate equal to, or greater than, 1.20 lbs/mmBtu which is part of an electric utility system which, as of November 15, 1990, (A) has at least 20 percent of its fossil-fuel capacity controlled by flue gas desulfurization devices, (B) has more than 10 percent of its fossil-fuel capacity consisting of coal-fired units of less than 75 MWe, and (C) has large units (greater than 400 MWe) all of which have difficult or very difficult FGD Retrofit Cost Factors (according to the Emissions and the FGD Retrofit Feasibility at the 200 Top Emitting Generating Stations, prepared for the United States Environmental Protection Agency on January 10, 1986) to exceed an annual sulfur dioxide emissions tonnage limitation equal to the product of its baseline multiplied by an emissions rate of 2.5 lbs/mmBtu, divided by 2,000, unless the owner or operator holds allowances to emit not less than the unit's total annual emissions. After January 1, 2010, it shall be unlawful for each unit subject to the emissions limitation requirements of this paragraph to exceed an annual emissions tonnage limitation equal to the product of its baseline multiplied by an emissions rate of 1.20 lbs/mmBtu, divided by 2,000, unless the owner or operator holds for use allowances to emit not less than the unit's total annual emissions.

(d) Coal-fired units below 1.20 lbs/mmBtu

(1) After January 1, 2000, it shall be unlawful for any existing coal-fired utility unit the lesser of whose actual or allowable 1985 sulfur dioxide emissions rate is less than 0.60 lbs/mmBtu to exceed an annual sulfur dioxide tonnage emission limitation equal to the product of the unit's baseline multiplied by (A) the lesser of 0.60 lbs/mmBtu or the unit's allowable 1985 emissions rate, and (B) a numerical factor of 120 percent, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) After January 1, 2000, it shall be unlawful for any existing coal-fired utility unit the lesser of whose actual or allowable 1985 sulfur dioxide emissions rate is equal to, or greater than, 0.60 lbs/mmBtu and less than 1.20 lbs/mmBtu to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's baseline multiplied by (A) the lesser of its actual 1985 emissions rate or its allowable 1985 emissions rate, and (B) a numerical factor of 120 percent, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(3)(A) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, at the election of the designated representative of the operating company, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) allowances from the reserve created pursuant to subsection (a)(2) in an amount equal to the amount by which (i) the product of the lesser of 0.60 lbs/mmBtu or the unit's allowable 1985 emissions rate multiplied by the unit's baseline adjusted to reflect operation at a 60 percent capacity factor, divided by 2,000, exceeds (ii) the number of allowances allocated for the unit pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations.

(B) In addition to allowances allocated pursuant to paragraph (2) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, at the election of the designated representative of the operating company, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Adminis-

[1] So in original. Probably should be ''unit's''.

trator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (2) allowances from the reserve created pursuant to subsection (a)(2) in an amount equal to the amount by which (i) the product of the lesser of the unit's actual 1985 emissions rate or its allowable 1985 emissions rate multiplied by the unit's baseline adjusted to reflect operation at a 60 percent capacity factor, divided by 2,000, exceeds (ii) the number of allowances allocated for the unit pursuant to paragraph (2) and section 7651b(a)(1) of this title as basic Phase II allowance allocations.

(C) An operating company with units subject to the emissions limitation requirements of this subsection may elect the allocation of allowances as provided under subparagraphs (A) and (B). Such election shall apply to the annual allowance allocation for each and every unit in the operating company subject to the emissions limitation requirements of this subsection. The Administrator shall allocate allowances pursuant to subparagraphs (A) and (B) only in accordance with this subparagraph.

(4) Notwithstanding any other provision of this section, at the election of the owner or operator, after January 1, 2000, the Administrator shall allocate in lieu of allocation, pursuant to paragraph (1), (2), (3), (5), or (6),[2] allowances for a unit subject to the emissions limitation requirements of this subsection which commenced commercial operation on or after January 1, 1981 and before December 31, 1985, which was subject to, and in compliance with, section 7411 of this title in an amount equal to the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the unit's allowable 1985 emissions rate, divided by 2,000.

(5) For the purposes of this section, in the case of an oil- and gas-fired unit which has been awarded a clean coal technology demonstration grant as of January 1, 1991, by the United States Department of Energy, beginning January 1, 2000, the Administrator shall allocate for the unit allowances in an amount equal to the unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2,000.

(e) Oil and gas-fired units equal to or greater than 0.60 lbs/mmBtu and less than 1.20 lbs/mmBtu

After January 1, 2000, it shall be unlawful for any existing oil and gas-fired utility unit the lesser of whose actual or allowable 1985 sulfur dioxide emission rate is equal to, or greater than, 0.60 lbs/mmBtu, but less than 1.20 lbs/mmBtu to exceed an annual sulfur dioxide tonnage limitation equal to the product of the unit's baseline multiplied by (A) the lesser of the unit's allowable 1985 emissions rate or its actual 1985 emissions rate and (B) a numerical factor of 120 percent divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(f) Oil and gas-fired units less than 0.60 lbs/mmBtu

(1) After January 1, 2000, it shall be unlawful for any oil and gas-fired existing utility unit the lesser of whose actual or allowable 1985 emission rate is less than 0.60 lbs/mmBtu and whose average annual fuel consumption during the period 1980 through 1989 on a Btu basis was 90 percent or less in the form of natural gas to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's baseline multiplied by (A) the lesser of 0.60 lbs/mmBtu or the unit's allowable 1985 emissions, and (B) a numerical factor of 120 percent, divided by 2,000, unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) In addition to allowances allocated pursuant to paragraph (1) as basic Phase II allowance allocations and section 7651b(a)(1) of this title, beginning January 1, 2000, the Administrator shall,[3] in the case of any unit operated by a utility that furnishes electricity, electric energy, steam, and natural gas within an area consisting of a city and 1 contiguous county, and in the case of any unit owned by a State authority, the output of which unit is furnished within that same area consisting of a city and 1 contiguous county, the Administrator shall allocate for each unit in the utility its pro rata share of 7,000 allowances and for each unit in the State authority its pro rata share of 2,000 allowances.

(g) Units that commence operation between 1986 and December 31, 1995

(1) After January 1, 2000, it shall be unlawful for any utility unit that has commenced commercial operation on or after January 1, 1986, but not later than September 30, 1990 to exceed an annual tonnage emission limitation equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the unit's allowable 1985 sulfur dioxide emission rate (converted, if necessary, to pounds per mmBtu), divided by 2,000 unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) After January 1, 2000, the Administrator shall allocate allowances pursuant to section 7651b of this title to each unit which is listed in table B of this paragraph in an annual amount equal to the amount specified in table B.

TABLE B

Unit	Allowances
Brandon Shores	8,907
Miller 4	9,197
TNP One 2	4,000
Zimmer 1	18,458
Spruce 1	7,647
Clover 1	2,796
Clover 2	2,796
Twin Oak 2	1,760
Twin Oak 1	9,158
Cross 1	6,401
Malakoff 1	1,759

Notwithstanding any other paragraph of this subsection, for units subject to this paragraph, the Administrator shall not allocate allowances pursuant to any other paragraph of this subsection, Provided[4] that the owner or operator of a unit listed on Table B may elect an allocation

[2] So in original. This subsection does not contain a paragraph (6).

[3] So in original. The words ''the Administrator shall,'' probably should not appear.

[4] So in original. Probably should not be capitalized.

of allowances under another paragraph of this subsection in lieu of an allocation under this paragraph.

(3) Beginning January 1, 2000, the Administrator shall allocate to the owner or operator of any utility unit that commences commercial operation, or has commenced commercial operation, on or after October 1, 1990, but not later than December 31, 1992 allowances in an amount equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of 0.30 lbs/mmBtu or the unit's allowable sulfur dioxide emission rate (converted, if necessary, to pounds per mmBtu), divided by 2,000.

(4) Beginning January 1, 2000, the Administrator shall allocate to the owner or operator of any utility unit that has commenced construction before December 31, 1990 and that commences commercial operation between January 1, 1993 and December 31, 1995, allowances in an amount equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of 0.30 lbs/mmBtu or the unit's allowable sulfur dioxide emission rate (converted, if necessary, to pounds per mmBtu), divided by 2,000.

(5) After January 1, 2000, it shall be unlawful for any existing utility unit that has completed conversion from predominantly gas fired existing operation to coal fired operation between January 1, 1985 and December 31, 1987, for which there has been allocated a proposed or final prohibition order pursuant to section 301(b)[5] of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8301 et seq,[6] repealed 1987) to exceed an annual sulfur dioxide tonnage emissions limitation equal to the product of the unit's annual fuel consumption, on a Btu basis, at a 65 percent capacity factor multiplied by the lesser of 1.20 lbs/mmBtu or the unit's allowable 1987 sulfur dioxide emissions rate, divided by 2,000, unless the owner or operator of such unit has obtained allowances equal to its actual emissions.

(6)(A)[7] Unless the Administrator has approved a designation of such facility under section 7651i of this title, the provisions of this subchapter shall not apply to a ''qualifying small power production facility'' or ''qualifying cogeneration facility'' (within the meaning of section 796(17)(C) or 796(18)(B) of title 16) or to a ''new independent power production facility'' as defined in section 7651*o* of this title except[8] that clause (iii)[9] of such definition in section 7651*o* of this title shall not apply for purposes of this paragraph if, as of November 15, 1990,

(i) an applicable power sales agreement has been executed;

(ii) the facility is the subject of a State regulatory authority order requiring an electric utility to enter into a power sales agreement with, purchase capacity from, or (for purposes of establishing terms and conditions of the electric utility's purchase of power) enter into arbitration concerning, the facility;

(iii) an electric utility has issued a letter of intent or similar instrument committing to purchase power from the facility at a previously offered or lower price and a power sales agreement is executed within a reasonable period of time; or

(iv) the facility has been selected as a winning bidder in a utility competitive bid solicitation.

(h) Oil and gas-fired units less than 10 percent oil consumed

(1) After January 1, 2000, it shall be unlawful for any oil- and gas-fired utility unit whose average annual fuel consumption during the period 1980 through 1989 on a Btu basis exceeded 90 percent in the form of natural gas to exceed an annual sulfur dioxide tonnage limitation equal to the product of the unit's baseline multiplied by the unit's actual 1985 emissions rate divided by 2,000 unless the owner or operator of such unit holds allowances to emit not less than the unit's total annual emissions.

(2) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) allowances from the reserve created pursuant to subsection (a)(2) of this section in an amount equal to the unit's baseline multiplied by 0.050 lbs/mmBtu, divided by 2,000.

(3) In addition to allowances allocated pursuant to paragraph (1) and section 7651b(a)(1) of this title, beginning January 1, 2010, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of paragraph (1) allowances in an amount equal to the unit's baseline multiplied by 0.050 lbs/mmBtu, divided by 2,000.

(i) Units in high growth States

(1) In addition to allowances allocated pursuant to this section and section 7651b(a)(1) of this title as basic Phase II allowance allocations, beginning January 1, 2000, the Administrator shall allocate annually allowances for each unit, subject to an emissions limitation requirement under this section, and located in a State that—

(A) has experienced a growth in population in excess of 25 percent between 1980 and 1988 according to State Population and Household Estimates, With Age, Sex, and Components of Change: 1981–1988 allocated by the United States Department of Commerce, and

(B) had an installed electrical generating capacity of more than 30,000,000 kw in 1988,

in an amount equal to the difference between (A) the number of allowances that would be allocated for the unit pursuant to the emissions limitation requirements of this section applicable to the unit adjusted to reflect the unit's annual average fuel consumption on a Btu basis of any three consecutive calendar years between 1980 and 1989 (inclusive) as elected by the owner or operator and (B) the number of allowances allocated for the unit pursuant to the emissions limitation requirements of this section: *Pro-*

[5] See References in Text note below.

[6] So in original. Probably should be ''seq.,''.

[7] So in original. No subpar. (B) has been enacted.

[8] So in original. Probably should be preceded by a comma.

[9] So in original. Probably means clause ''(C)''.

vided, That the number of allowances allocated pursuant to this subsection shall not exceed an annual total of 40,000. If necessary to meeting the 40,000 allowance restriction imposed under this subsection the Administrator shall reduce, pro rata, the additional annual allowances allocated to each unit under this subsection.

(2) Beginning January 1, 2000, in addition to allowances allocated pursuant to this section and section 7651b(a)(1) of this title as basic Phase II allowance allocations, the Administrator shall allocate annually for each unit subject to the emissions limitation requirements of subsection (b)(1), (A) the lesser of whose actual or allowable 1980 emissions rate has declined by 50 percent or more as of November 15, 1990, (B) whose actual emissions rate is less than 1.2 lbs/mmBtu as of January 1, 2000, (C) which commenced operation after January 1, 1970, (D) which is owned by a utility company whose combined commercial and industrial kilowatt-hour sales have increased by more than 20 percent between calendar year 1980 and November 15, 1990, and (E) whose company-wide fossil-fuel sulfur dioxide emissions rate has declined 40 per centum or more from 1980 to 1988, allowances in an amount equal to the difference between (i) the number of allowances that would be allocated for the unit pursuant to the emissions limitation requirements of subsection (b)(1) adjusted to reflect the unit's annual average fuel consumption on a Btu basis for any three consecutive years between 1980 and 1989 (inclusive) as elected by the owner or operator and (ii) the number of allowances allocated for the unit pursuant to the emissions limitation requirements of subsection (b)(1) of this section: *Provided*, That the number of allowances allocated pursuant to this paragraph shall not exceed an annual total of 5,000. If necessary to meeting the 5,000-allowance restriction imposed in the last clause of the preceding sentence the Administrator shall reduce, pro rata, the additional allowances allocated to each unit pursuant to this paragraph.

(j) Certain municipally owned power plants

Beginning January 1, 2000, in addition to allowances allocated pursuant to this section and section 7651b(a)(1) of this title as basic Phase II allowance allocations, the Administrator shall allocate annually for each existing municipally owned oil and gas-fired utility unit with nameplate capacity equal to, or less than, 40 MWe, the lesser of whose actual or allowable 1985 sulfur dioxide emission rate is less than 1.20 lbs/mmBtu, allowances in an amount equal to the product of the unit's annual fuel consumption on a Btu basis at a 60 percent capacity factor multiplied by the lesser of its allowable 1985 emission rate or its actual 1985 emission rate, divided by 2,000.

(July 14, 1955, ch. 360, title IV, § 405, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2605.)

REFERENCES IN TEXT

Section 301(b) of the Powerplant and Industrial Fuel Use Act of 1978, referred to in subsec. (g)(5), is section 301(b) of Pub. L. 95–620, which is classified to section 8341(b) of this title. A prior section 301(b) of Pub. L. 95–620, title III, Nov. 9, 1978, 92 Stat. 3305, which was formerly classified to section 8341(b) of this title, was repealed by Pub. L. 97–35, title X, § 1021(a), Aug. 13, 1981, 95 Stat. 614.

§ 7651e. Allowances for States with emissions rates at or below 0.80 lbs/mmBtu

(a) Election of Governor

In addition to basic Phase II allowance allocations, upon the election of the Governor of any State, with a 1985 state-wide annual sulfur dioxide emissions rate equal to or less than, 0.80 lbs/mmBtu, averaged over all fossil fuel-fired utility steam generating units, beginning January 1, 2000, and for each calendar year thereafter until and including 2009, the Administrator shall allocate, in lieu of other Phase II bonus allowance allocations, allowances from the reserve created pursuant to section 7651d(a)(2) of this title to all such units in the State in an amount equal to 125,000 multiplied by the unit's pro rata share of electricity generated in calendar year 1985 at fossil fuel-fired utility steam units in all States eligible for the election.

(b) Notification of Administrator

Pursuant to section 7651b(a)(1) of this title, each Governor of a State eligible to make an election under paragraph[1] (a) shall notify the Administrator of such election. In the event that the Governor of any such State fails to notify the Administrator of the Governor's elections, the Administrator shall allocate allowances pursuant to section 7651d of this title.

(c) Allowances after January 1, 2010

After January 1, 2010, the Administrator shall allocate allowances to units subject to the provisions of this section pursuant to section 7651d of this title.

(July 14, 1955, ch. 360, title IV, § 406, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2613.)

§ 7651f. Nitrogen oxides emission reduction program

(a) Applicability

On the date that a coal-fired utility unit becomes an affected unit pursuant to sections 7651c, 7651d,[1] 7651h of this title, or on the date a unit subject to the provisions of section 7651c(d) or 7651h(b) of this title, must meet the SO_2 reduction requirements, each such unit shall become an affected unit for purposes of this section and shall be subject to the emission limitations for nitrogen oxides set forth herein.

(b) Emission limitations

(1) Not later than eighteen months after November 15, 1990, the Administrator shall by regulation establish annual allowable emission limitations for nitrogen oxides for the types of utility boilers listed below, which limitations shall not exceed the rates listed below: *Provided*, That the Administrator may set a rate higher than that listed for any type of utility boiler if the Administrator finds that the maximum listed rate for that boiler type cannot be achieved using low NO_x burner technology. The maximum allowable emission rates are as follows:

[1] So in original. Probably should be "subsection".

[1] So in original. Probably should be followed by "or".

(A) for tangentially fired boilers, 0.45 lb/mmBtu;

(B) for dry bottom wall-fired boilers (other than units applying cell burner technology), 0.50 lb/mmBtu.

After January 1, 1995, it shall be unlawful for any unit that is an affected unit on that date and is of the type listed in this paragraph to emit nitrogen oxides in excess of the emission rates set by the Administrator pursuant to this paragraph.

(2) Not later than January 1, 1997, the Administrator shall, by regulation, establish allowable emission limitations on a lb/mmBtu, annual average basis, for nitrogen oxides for the following types of utility boilers:

(A) wet bottom wall-fired boilers;

(B) cyclones;

(C) units applying cell burner technology;

(D) all other types of utility boilers.

The Administrator shall base such rates on the degree of reduction achievable through the retrofit application of the best system of continuous emission reduction, taking into account available technology, costs and energy and environmental impacts; and which is comparable to the costs of nitrogen oxides controls set pursuant to subsection (b)(1). Not later than January 1, 1997, the Administrator may revise the applicable emission limitations for tangentially fired and dry bottom, wall-fired boilers (other than cell burners) to be more stringent if the Administrator determines that more effective low NO_x burner technology is available: *Provided*, That, no unit that is an affected unit pursuant to section 7651c of this title and that is subject to the requirements of subsection (b)(1), shall be subject to the revised emission limitations, if any.

(c) Revised performance standards

(1)[2] Not later than January 1, 1993, the Administrator shall propose revised standards of performance to section 7411 of this title for nitrogen oxides emissions from fossil-fuel fired steam generating units, including both electric utility and nonutility units. Not later than January 1, 1994, the Administrator shall promulgate such revised standards of performance. Such revised standards of performance shall reflect improvements in methods for the reduction of emissions of oxides of nitrogen.

(d) Alternative emission limitations

The permitting authority shall, upon request of an owner or operator of a unit subject to this section, authorize an emission limitation less stringent than the applicable limitation established under subsection (b)(1) or (b)(2) upon a determination that—

(1) a unit subject to subsection (b)(1) cannot meet the applicable limitation using low NO_x burner technology; or

(2) a unit subject to subsection (b)(2) cannot meet the applicable rate using the technology on which the Administrator based the applicable emission limitation.

The permitting authority shall base such determination upon a showing satisfactory to the permitting authority, in accordance with regulations established by the Administrator not later than eighteen months after November 15, 1990, that the owner or operator—

(1) has properly installed appropriate control equipment designed to meet the applicable emission rate;

(2) has properly operated such equipment for a period of fifteen months (or such other period of time as the Administrator determines through the regulations), and provides operating and monitoring data for such period demonstrating that the unit cannot meet the applicable emission rate; and

(3) has specified an emission rate that such unit can meet on an annual average basis.

The permitting authority shall issue an operating permit for the unit in question, in accordance with section 7651g of this title and part B[3] of title III—

(i) that permits the unit during the demonstration period referred to in subparagraph (2) above, to emit at a rate in excess of the applicable emission rate;

(ii) at the conclusion of the demonstration period to revise the operating permit to reflect the alternative emission rate demonstrated in paragraphs (2) and (3) above.

Units subject to subsection (b)(1) for which an alternative emission limitation is established shall not be required to install any additional control technology beyond low NO_x burners. Nothing in this section shall preclude an owner or operator from installing and operating an alternative NO_x control technology capable of achieving the applicable emission limitation. If the owner or operator of a unit subject to the emissions limitation requirements of subsection (b)(1) demonstrates to the satisfaction of the Administrator that the technology necessary to meet such requirements is not in adequate supply to enable its installation and operation at the unit, consistent with system reliability, by January 1, 1995, then the Administrator shall extend the deadline for compliance for the unit by a period of 15 months. Any owner or operator may petition the Administrator to make a determination under the previous sentence. The Administrator shall grant or deny such petition within 3 months of submittal.

(e) Emissions averaging

In lieu of complying with the applicable emission limitations under subsection (b)(1), (2), or (d), the owner or operator of two or more units subject to one or more of the applicable emission limitations set pursuant to these sections,[4] may petition the permitting authority for alternative contemporaneous annual emission limitations for such units that ensure that (1) the actual annual emission rate in pounds of nitrogen oxides per million Btu averaged over the units in question is a rate that is less than or equal to (2) the Btu-weighted average annual emission rate for the same units if they had been operated, during the same period of time, in compliance with limitations set in accord-

[2] So in original. No par. (2) has been enacted.

[3] See References in Text note below.

[4] So in original. Probably should be ''subsections,''.

ance with the applicable emission rates set pursuant to subsections (b)(1) and (2).

If the permitting authority determines, in accordance with regulations issued by the Administrator not later than eighteen months after November 15, 1990;[5] that the conditions in the paragraph above can be met, the permitting authority shall issue operating permits for such units, in accordance with section 7651g of this title and part B[3] of title III, that allow alternative contemporaneous annual emission limitations. Such emission limitations shall only remain in effect while both units continue operation under the conditions specified in their respective operating permits.

(July 14, 1955, ch. 360, title IV, § 407, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2613.)

REFERENCES IN TEXT

Part B of title III, referred to in subsecs. (d) and (e), means title III of the Clean Air Act, act July 14, 1955, ch. 360, as added, which is classified to subchapter III of this chapter, but title III does not contain parts. For provisions of the Clean Air Act relating to permits, see subchapter V (§ 7661 et seq.) of this chapter.

§ 7651g. Permits and compliance plans

(a) Permit program

The provisions of this subchapter shall be implemented, subject to section 7651b of this title, by permits issued to units subject to this subchapter (and enforced) in accordance with the provisions of subchapter V, as modified by this subchapter. Any such permit issued by the Administrator, or by a State with an approved permit program, shall prohibit—

(1) annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide the owner or operator, or the designated representative of the owners or operators, of the unit hold for the unit,

(2) exceedances of applicable emissions rates,

(3) the use of any allowance prior to the year for which it was allocated, and

(4) contravention of any other provision of the permit.

Permits issued to implement this subchapter shall be issued for a period of 5 years, notwithstanding subchapter V. No permit shall be issued that is inconsistent with the requirements of this subchapter, and subchapter V as applicable.

(b) Compliance plan

Each initial permit application shall be accompanied by a compliance plan for the source to comply with its requirements under this subchapter. Where an affected source consists of more than one affected unit, such plan shall cover all such units, and for purposes of section 7661a(c) of this title, such source shall be considered a ''facility''. Nothing in this section regarding compliance plans or in subchapter V shall be construed as affecting allowances. Except as provided under subsection (c)(1)(B), submission of a statement by the owner or operator, or the designated representative of the owners and operators, of a unit subject to the emissions limitation requirements of sections 7651c, 7651d, and 7651f of this title, that the unit will meet the applicable emissions limitation requirements of such sections in a timely manner or that, in the case of the emissions limitation requirements of sections 7651c and 7651d of this title, the owners and operators will hold allowances to emit not less than the total annual emissions of the unit, shall be deemed to meet the proposed and approved compliance planning requirements of this section and subchapter V, except that, for any unit that will meet the requirements of this subchapter by means of an alternative method of compliance authorized under section 7651c(b), (c), (d), or (f) of this title[1] section 7651f(d) or (e) of this title, section 7651h of this title and section 7651i of this title, the proposed and approved compliance plan, permit application and permit shall include, pursuant to regulations promulgated by the Administrator, for each alternative method of compliance a comprehensive description of the schedule and means by which the unit will rely on one or more alternative methods of compliance in the manner and time authorized under this subchapter. Recordation by the Administrator of transfers of allowances shall amend automatically all applicable proposed or approved permit applications, compliance plans and permits. The Administrator may also require—

(1) for a source, a demonstration of attainment of national ambient air quality standards, and

(2) from the owner or operator of two or more affected sources, an integrated compliance plan providing an overall plan for achieving compliance at the affected sources.

(c) First phase permits

The Administrator shall issue permits to affected sources under sections 7651c and 7651f of this title.

(1) Permit application and compliance plan

(A) Not later than 27 months after November 15, 1990, the designated representative of the owners or operators, or the owner and operator, of each affected source under sections 7651c and 7651f of this title shall submit a permit application and compliance plan for that source in accordance with regulations issued by the Administrator under paragraph (3). The permit application and the compliance plan shall be binding on the owner or operator or the designated representative of owners and operators for purposes of this subchapter and section 7651a(a)[2] of this title, and shall be enforceable in lieu of a permit until a permit is issued by the Administrator for the source.

(B) In the case of a compliance plan for an affected source under sections 7651c and 7651f of this title for which the owner or operator proposes to meet the requirements of that section by reducing utilization of the unit as compared with its baseline or by shutting down the unit, the owner or operator shall include in the proposed compliance plan a speci-

[5] So in original. The semicolon probably should be a comma.

[1] So in original. Probably should be followed by a comma.

[2] So in original. Section 7651a of this title does not contain subsections.

fication of the unit or units that will provide electrical generation to compensate for the reduced output at the affected source, or a demonstration that such reduced utilization will be accomplished through energy conservation or improved unit efficiency. The unit to be used for such compensating generation, which is not otherwise an affected unit under sections 7651c and 7651f of this title, shall be deemed an affected unit under section 7651c of this title, subject to all of the requirements for such units under this subchapter, except that allowances shall be allocated to such compensating unit in the amount of an annual limitation equal to the product of the unit's baseline multiplied by the lesser of the unit's actual 1985 emissions rate or its allowable 1985 emissions rate, divided by 2,000.

(2) EPA action on compliance plans

The Administrator shall review each proposed compliance plan to determine whether it satisfies the requirements of this subchapter, and shall approve or disapprove such plan within 6 months after receipt of a complete submission. If a plan is disapproved, it may be resubmitted for approval with such changes as the Administrator shall require consistent with the requirements of this subchapter and within such period as the Administrator prescribes as part of such disapproval.

(3) Regulations; issuance of permits

Not later than 18 months after November 15, 1990, the Administrator shall promulgate regulations, in accordance with subchapter V, to implement a Federal permit program to issue permits for affected sources under this subchapter. Following promulgation, the Administrator shall issue a permit to implement the requirements of section 7651c of this title and the allowances provided under section 7651b of this title to the owner or operator of each affected source under section 7651c of this title. Such a permit shall supersede any permit application and compliance plan submitted under paragraph (1).

(4) Fees

During the years 1995 through 1999 inclusive, no fee shall be required to be paid under section 7661a(b)(3) of this title or under section 7410(a)(2)(L) of this title with respect to emissions from any unit which is an affected unit under section 7651c of this title.

(d) Second phase permits

(1) To provide for permits for (A) new electric utility steam generating units required under section 7651b(e) of this title to have allowances, (B) affected units or sources under section 7651d of this title, and (C) existing units subject to nitrogen oxide emission reductions under section 7651f of this title, each State in which one or more such units or sources are located shall submit in accordance with subchapter V, a permit program for approval as provided by that subchapter. Upon approval of such program, for the units or sources subject to such approved program the Administrator shall suspend the issuance of permits as provided in subchapter V.

(2) The owner or operator or the designated representative of each affected source under section 7651d of this title shall submit a permit application and compliance plan for that source to the permitting authority, not later than January 1, 1996.

(3) Not later than December 31, 1997, each State with an approved permit program shall issue permits to the owner or operator, or the designated representative of the owners and operators, of affected sources under section 7651d of this title that satisfy the requirements of subchapter V and this subchapter and that submitted to such State a permit application and compliance plan pursuant to paragraph (2). In the case of a State without an approved permit program by July 1, 1996, the Administrator shall, not later than January 1, 1998, issue a permit to the owner or operator or the designated representative of each such affected source. In the case of affected sources for which applications and plans are timely received under paragraph (2), the permit application and the compliance plan, including amendments thereto, shall be binding on the owner or operator or the designated representative of the owners or operators and shall be enforceable as a permit for purposes of this subchapter and subchapter V until a permit is issued by the permitting authority for the affected source. The provisions of section 558(c) of title 5 (relating to renewals) shall apply to permits issued by a permitting authority under this subchapter and subchapter V.

(4) The permit issued in accordance with this subsection for an affected source shall provide that the affected units at the affected source may not emit an annual tonnage of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide the owner or operator or designated representative hold for the unit.

(e) New units

The owner or operator of each source that includes a new electric utility steam generating unit shall submit a permit application and compliance plan to the permitting authority not later than 24 months before the later of (1) January 1, 2000, or (2) the date on which the unit commences operation. The permitting authority shall issue a permit to the owner or operator, or the designated representative thereof, of the unit that satisfies the requirements of subchapter V and this subchapter.

(f) Units subject to certain other limits

The owner or operator, or designated representative thereof, of any unit subject to an emission rate requirement under section 7651f of this title shall submit a permit application and compliance plan for such unit to the permitting authority, not later than January 1, 1998. The permitting authority shall issue a permit to the owner or operator that satisfies the requirements of subchapter V and this subchapter, including any appropriate monitoring and reporting requirements.

(g) Amendment of application and compliance plan

At any time after the submission of an application and compliance plan under this section, the applicant may submit a revised application and compliance plan, in accordance with the requirements of this section. In considering any

permit application and compliance plan under this subchapter, the permitting authority shall ensure coordination with the applicable electric ratemaking authority, in the case of regulated utilities, and with unregulated public utilities.

(h) Prohibition

(1) It shall be unlawful for an owner or operator, or designated representative, required to submit a permit application or compliance plan under this subchapter to fail to submit such application or plan in accordance with the deadlines specified in this section or to otherwise fail to comply with regulations implementing this section.

(2) It shall be unlawful for any person to operate any source subject to this subchapter except in compliance with the terms and requirements of a permit application and compliance plan (including amendments thereto) or permit issued by the Administrator or a State with an approved permit program. For purposes of this subsection, compliance, as provided in section 7661c(f) of this title, with a permit issued under subchapter V which complies with this subchapter for sources subject to this subchapter shall be deemed compliance with this subsection as well as section 7661a(a) of this title.

(3) In order to ensure reliability of electric power, nothing in this subchapter or subchapter V shall be construed as requiring termination of operations of an electric utility steam generating unit for failure to have an approved permit or compliance plan, except that any such unit may be subject to the applicable enforcement provisions of section 7413 of this title.

(i) Multiple owners

No permit shall be issued under this section to an affected unit until the designated representative of the owners or operators has filed a certificate of representation with regard to matters under this subchapter, including the holding and distribution of allowances and the proceeds of transactions involving allowances. Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, such a unit, or where a utility or industrial customer purchases power from an affected unit (or units) under life-of-the-unit, firm power contractual arrangements, the certificate shall state (1) that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, or (2) if such multiple holders have expressly provided for a different distribution of allowances by contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract. A passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the affected unit shall not be deemed to be a holder of a legal, equitable, leasehold, or contractual interest for the purpose of holding or distributing allowances as provided in this subsection, during either the term of such leasehold or thereafter, unless expressly provided for in the leasehold agreement. Except as otherwise provided in this subsection, where all legal or equitable title to or interest in an affected unit is held by a single person, the certification shall state that all allowances received by the unit are deemed to be held for that person.

(July 14, 1955, ch. 360, title IV, § 408, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2616.)

§ 7651h. Repowered sources

(a) Availability

Not later than December 31, 1997, the owner or operator of an existing unit subject to the emissions limitation requirements of section 7651d(b) and (c) of this title may demonstrate to the permitting authority that one or more units will be repowered with a qualifying clean coal technology to comply with the requirements under section 7651d of this title. The owner or operator shall, as part of any such demonstration, provide, not later than January 1, 2000, satisfactory documentation of a preliminary design and engineering effort for such repowering and an executed and binding contract for the majority of the equipment to repower such unit and such other information as the Administrator may require by regulation. The replacement of an existing utility unit with a new utility unit using a repowering technology referred to in section 7651a(2)[1] of this title which is located at a different site, shall be treated as repowering of the existing unit for purposes of this subchapter, if—

(1) the replacement unit is designated by the owner or operator to replace such existing unit, and

(2) the existing unit is retired from service on or before the date on which the designated replacement unit enters commercial operation.

(b) Extension

(1) An owner or operator satisfying the requirements of subsection (a) shall be granted an extension of the emission limitation requirement compliance date for that unit from January 1, 2000, to December 31, 2003. The extension shall be specified in the permit issued to the source under section 7651g of this title, together with any compliance schedule and other requirements necessary to meet second phase requirements by the extended date. Any unit that is granted an extension under this section shall not be eligible for a waiver under section 7411(j) of this title, and shall continue to be subject to requirements under this subchapter as if it were a unit subject to section 7651d of this title.

(2) If (A) the owner or operator of an existing unit has been granted an extension under paragraph (1) in order to repower such unit with a clean coal unit, and (B) such owner or operator demonstrates to the satisfaction of the Administrator that the repowering technology to be utilized by such unit has been properly constructed and tested on such unit, but nevertheless has been unable to achieve the emission reduction limitations and is economically or technologically infeasible, such existing unit may be retrofitted or repowered with equipment or fa-

[1] So in original. Probably should be section ''7651a(12)''.

cilities utilizing another clean coal technology or other available control technology.

(c) Allowances

(1) For the period of the extension under this section, the Administrator shall allocate to the owner or operator of the affected unit, annual allowances for sulfur dioxide equal to the affected unit's baseline multiplied by the lesser of the unit's federally approved State Implementation Plan emissions limitation or its actual emission rate for 1995 in lieu of any other allocation. Such allowances may not be transferred or used by any other source to meet emission requirements under this subchapter. The source owner or operator shall notify the Administrator sixty days in advance of the date on which the affected unit for which the extension has been granted is to be removed from operation to install the repowering technology.

(2) Effective on that date, the unit shall be subject to the requirements of section 7651d of this title. Allowances for the year in which the unit is removed from operation to install the repowering technology shall be calculated as the product of the unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2,000, and prorated accordingly, and are transferable.

(3) Allowances for such existing utility units for calendar years after the year the repowering is complete shall be calculated as the product of the existing unit's baseline multiplied by 1.20 lbs/mmBtu, divided by 2,000.

(4) Notwithstanding the provisions of section 7651b(a) and (e) of this title, allowances shall be allocated under this section for a designated replacement unit which replaces an existing unit (as provided in the last sentence of subsection (a)) in lieu of any further allocations of allowances for the existing unit.

(5) For the purpose of meeting the aggregate emissions limitation requirement set forth in section 7651b(a)(1) of this title, the units with an extension under this subsection shall be treated in each calendar year during the extension period as holding allowances allocated under paragraph (3).

(d) Control requirements

Any unit qualifying for an extension under this section that does not increase actual hourly emissions for any pollutant regulated under the[2] chapter shall not be subject to any standard of performance under section 7411 of this title. Notwithstanding the provisions of this subsection, no new unit (1) designated as a replacement for an existing unit, (2) qualifying for the extension under subsection (b), and (3) located at a different site than the existing unit shall receive an exemption from the requirements imposed under section 7411 of this title.

(e) Expedited permitting

State permitting authorities and, where applicable, the Administrator, are encouraged to give expedited consideration to permit applications under parts C and D of subchapter I of this chapter for any source qualifying for an extension under this section.

[2] So in original. Probably should be ''this''.

(f) Prohibition

It shall be unlawful for the owner or operator of a repowered source to fail to comply with the requirement of this section, or any regulations of permit requirements to implement this section, including the prohibition against emitting sulfur dioxide in excess of allowances held.

(July 14, 1955, ch. 360, title IV, § 409, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2619.)

§ 7651i. Election for additional sources

(a) Applicability

The owner or operator of any unit that is not, nor will become, an affected unit under section 7651b(e), 7651c, or 7651d of this title, or that is a process source under subsection (d), that emits sulfur dioxide, may elect to designate that unit or source to become an affected unit and to receive allowances under this subchapter. An election shall be submitted to the Administrator for approval, along with a permit application and proposed compliance plan in accordance with section 7651g of this title. The Administrator shall approve a designation that meets the requirements of this section, and such designated unit, or source, shall be allocated allowances, and be an affected unit for purposes of this subchapter.

(b) Establishment of baseline

The baseline for a unit designated under this section shall be established by the Administrator by regulation, based on fuel consumption and operating data for the unit for calendar years 1985, 1986, and 1987, or if such data is not available, the Administrator may prescribe a baseline based on alternative representative data.

(c) Emission limitations

Annual emissions limitations for sulfur dioxide shall be equal to the product of the baseline multiplied by the lesser of the unit's 1985 actual or allowable emission rate in lbs/mmBtu, or, if the unit did not operate in 1985, by the lesser of the unit's actual or allowable emission rate for a calendar year after 1985 (as determined by the Administrator), divided by 2,000.

(d) Process sources

Not later than 18 months after November 15, 1990, the Administrator shall establish a program under which the owner or operator of a process source that emits sulfur dioxide may elect to designate that source as an affected unit for the purpose of receiving allowances under this subchapter. The Administrator shall, by regulation, define the sources that may be designated; specify the emissions limitation; specify the operating, emission baseline, and other data requirements; prescribe CEMS or other monitoring requirements; and promulgate permit, reporting, and any other requirements necessary to implement such a program.

(e) Allowances and permits

The Administrator shall issue allowances to an affected unit under this section in an amount equal to the emissions limitation calculated under subsection (c) or (d), in accordance with

section 7651b of this title. Such allowance may be used in accordance with, and shall be subject to, the provisions of section 7651b of this title. Affected sources under this section shall be subject to the requirements of sections 7651b, 7651g, 7651j, 7651k, 7651*l*, and 7651m of this title.

(f) Limitation

Any unit designated under this section shall not transfer or bank allowances produced as a result of reduced utilization or shutdown, except that, such allowances may be transferred or carried forward for use in subsequent years to the extent that the reduced utilization or shutdown results from the replacement of thermal energy from the unit designated under this section, with thermal energy generated by any other unit or units subject to the requirements of this subchapter, and the designated unit's allowances are transferred or carried forward for use at such other replacement unit or units. In no case may the Administrator allocate to a source designated under this section allowances in an amount greater than the emissions resulting from operation of the source in full compliance with the requirements of this chapter. No such allowances shall authorize operation of a unit in violation of any other requirements of this chapter.

(g) Implementation

The Administrator shall issue regulations to implement this section not later than eighteen months after November 15, 1990.

(h) Small diesel refineries

The Administrator shall issue allowances to owners or operators of small diesel refineries who produce diesel fuel after October 1, 1993, meeting the requirements of subsection[1] 7545(i) of this title.

(1) Allowance period

Allowances may be allocated under this subsection only for the period from October 1, 1993, through December 31, 1999.

(2) Allowance determination

The number of allowances allocated pursuant to this paragraph shall equal the annual number of pounds of sulfur dioxide reduction attributable to desulfurization by a small refinery divided by 2,000. For the purposes of this calculation, the concentration of sulfur removed from diesel fuel shall be the difference between 0.274 percent (by weight) and 0.050 percent (by weight).

(3) Refinery eligibility

As used in this subsection, the term ''small refinery'' shall mean a refinery or portion of a refinery—

(A) which, as of November 15, 1990, has bona fide crude oil throughput of less than 18,250,000 barrels per year, as reported to the Department of Energy, and

(B) which, as of November 15, 1990, is owned or controlled by a refiner with a total combined bona fide crude oil throughput of less than 50,187,500 barrels per year, as reported to the Department of Energy.

(4) Limitation per refinery

The maximum number of allowances that can be annually allocated to a small refinery pursuant to this subsection is one thousand and five hundred.

(5) Limitation on total

In any given year, the total number of allowances allocated pursuant to this subsection shall not exceed thirty-five thousand.

(6) Required certification

The Administrator shall not allocate any allowances pursuant to this subsection unless the owner or operator of a small diesel refinery shall have certified, at a time and in a manner prescribed by the Administrator, that all motor diesel fuel produced by the refinery for which allowances are claimed, including motor diesel fuel for off-highway use, shall have met the requirements of subsection[1] 7545(i) of this title.

(July 14, 1955, ch. 360, title IV, § 410, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2621.)

§ 7651j. Excess emissions penalty

(a) Excess emissions penalty

The owner or operator of any unit or process source subject to the requirements of sections[1] 7651b, 7651c, 7651d, 7651e, 7651f or 7651h of this title, or designated under section 7651i of this title, that emits sulfur dioxide or nitrogen oxides for any calendar year in excess of the unit's emissions limitation requirement or, in the case of sulfur dioxide, of the allowances the owner or operator holds for use for the unit for that calendar year shall be liable for the payment of an excess emissions penalty, except where such emissions were authorized pursuant to section 7410(f) of this title. That penalty shall be calculated on the basis of the number of tons emitted in excess of the unit's emissions limitation requirement or, in the case of sulfur dioxide, of the allowances the operator holds for use for the unit for that year, multiplied by $2,000. Any such penalty shall be due and payable without demand to the Administrator as provided in regulations to be issued by the Administrator by no later than eighteen months after November 15, 1990. Any such payment shall be deposited in the United States Treasury pursuant to the Miscellaneous Receipts Act.[2] Any penalty due and payable under this section shall not diminish the liability of the unit's owner or operator for any fine, penalty or assessment against the unit for the same violation under any other section of this chapter.

(b) Excess emissions offset

The owner or operator of any affected source that emits sulfur dioxide during any calendar year in excess of the unit's emissions limitation requirement or of the allowances held for the unit for the calendar year, shall be liable to offset the excess emissions by an equal tonnage amount in the following calendar year, or such longer period as the Administrator may pre-

[1] So in original. Probably should be ''section''.

[1] So in original. Probably should be ''section''.

[2] See References in Text note below.

scribe. The owner or operator of the source shall, within sixty days after the end of the year in which the excess emissions occured,[3] submit to the Administrator, and to the State in which the source is located, a proposed plan to achieve the required offsets. Upon approval of the proposed plan by the Administrator, as submitted, modified or conditioned, the plan shall be deemed at[4] a condition of the operating permit for the unit without further review or revision of the permit. The Administrator shall also deduct allowances equal to the excess tonnage from those allocated for the source for the calendar year, or succeeding years during which offsets are required, following the year in which the excess emissions occurred.

(c) Penalty adjustment

The Administrator shall, by regulation, adjust the penalty specified in subsection (a) for inflation, based on the Consumer Price Index, on November 15, 1990, and annually thereafter.

(d) Prohibition

It shall be unlawful for the owner or operator of any source liable for a penalty and offset under this section to fail (1) to pay the penalty under subsection (a), (2) to provide, and thereafter comply with, a compliance plan as required by subsection (b), or (3) to offset excess emissions as required by subsection (b).

(e) Savings provision

Nothing in this subchapter shall limit or otherwise affect the application of section 7413, 7414, 7420, or 7604 of this title except as otherwise explicitly provided in this subchapter.

(July 14, 1955, ch. 360, title IV, §411, as added Pub. L. 101–549, title IV, §401, Nov. 15, 1990, 104 Stat. 2623.)

REFERENCES IN TEXT

The Miscellaneous Receipts Act, referred to in subsec. (a), is not a recognized popular name for an act. For provisions relating to deposit of monies, see section 3302 of Title 31, Money and Finance.

§ 7651k. Monitoring, reporting, and recordkeeping requirements

(a) Applicability

The owner and operator of any source subject to this subchapter shall be required to install and operate CEMS on each affected unit at the source, and to quality assure the data for sulfur dioxide, nitrogen oxides, opacity and volumetric flow at each such unit. The Administrator shall, by regulations issued not later than eighteen months after November 15, 1990, specify the requirements for CEMS, for any alternative monitoring system that is demonstrated as providing information with the same precision, reliability, accessibility, and timeliness as that provided by CEMS, and for recordkeeping and reporting of information from such systems. Such regulations may include limitations or the use of alternative compliance methods by units equipped with an alternative monitoring system as may be necessary to preserve the orderly functioning of the allowance system, and which will ensure the emissions reductions contemplated by this subchapter. Where 2 or more units utilize a single stack, a separate CEMS shall not be required for each unit, and for such units the regulations shall require that the owner or operator collect sufficient information to permit reliable compliance determinations for each such unit.

(b) First phase requirements

Not later than thirty-six months after November 15, 1990, the owner or operator of each affected unit under section 7651c of this title, including, but not limited to, units that become affected units pursuant to subsections (b) and (c) and eligible units under subsection (d), shall install and operate CEMS, quality assure the data, and keep records and reports in accordance with the regulations issued under subsection (a).

(c) Second phase requirements

Not later than January 1, 1995, the owner or operator of each affected unit that has not previously met the requirements of subsections (a) and (b) shall install and operate CEMS, quality assure the data, and keep records and reports in accordance with the regulations issued under subsection (a). Upon commencement of commercial operation of each new utility unit, the unit shall comply with the requirements of subsection (a).

(d) Unavailability of emissions data

If CEMS data or data from an alternative monitoring system approved by the Administrator under subsection (a) is not available for any affected unit during any period of a calendar year in which such data is required under this subchapter, and the owner or operator cannot provide information, satisfactory to the Administrator, on emissions during that period, the Administrator shall deem the unit to be operating in an uncontrolled manner during the entire period for which the data was not available and shall, by regulation which shall be issued not later than eighteen months after November 15, 1990, prescribe means to calculate emissions for that period. The owner or operator shall be liable for excess emissions fees and offsets under section 7651j of this title in accordance with such regulations. Any fee due and payable under this subsection shall not diminish the liability of the unit's owner or operator for any fine, penalty, fee or assessment against the unit for the same violation under any other section of this chapter.

(e) Prohibition

It shall be unlawful for the owner or operator of any source subject to this subchapter to operate a source without complying with the requirements of this section, and any regulations implementing this section.

(July 14, 1955, ch. 360, title IV, §412, as added Pub. L. 101–549, title IV, §401, Nov. 15, 1990, 104 Stat. 2624.)

INFORMATION GATHERING ON GREENHOUSE GASES CONTRIBUTING TO GLOBAL CLIMATE CHANGE

Pub. L. 101–549, title VIII, §821, Nov. 15, 1990, 104 Stat. 2699, provided that:

[3] So in original. Probably should be "occurred,".

[4] So in original.

''(a) MONITORING.—The Administrator of the Environmental Protection Agency shall promulgate regulations within 18 months after the enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990] to require that all affected sources subject to title V of the Clean Air Act [probably means title IV of the Clean Air Act as added by Pub. L. 101–549, which is classified to section 7651 et seq. of this title] shall also monitor carbon dioxide emissions according to the same timetable as in section 511(b) and (c) [probably means section 412(b) and (c) of the Clean Air Act, which is classified to section 7651k(b) and (c) of this title]. The regulations shall require that such data be reported to the Administrator. The provisions of section 511(e) of title V of the Clean Air Act [probably means section 412(e) of title IV of the Clean Air Act, which is classified to section 7651k(e) of this title] shall apply for purposes of this section in the same manner and to the same extent as such provision applies to the monitoring and data referred to in section 511 [probably means section 412 of the Clean Air Act, which is classified to section 7651k of this title].

''(b) PUBLIC AVAILABILITY OF CARBON DIOXIDE INFORMATION.—For each unit required to monitor and provide carbon dioxide data under subsection (a), the Administrator shall compute the unit's aggregate annual total carbon dioxide emissions, incorporate such data into a computer data base, and make such aggregate annual data available to the public.''

§ 7651*l*. General compliance with other provisions

Except as expressly provided, compliance with the requirements of this subchapter shall not exempt or exclude the owner or operator of any source subject to this subchapter from compliance with any other applicable requirements of this chapter.

(July 14, 1955, ch. 360, title IV, § 413, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2625.)

§ 7651m. Enforcement

It shall be unlawful for any person subject to this subchapter to violate any prohibition of, requirement of, or regulation promulgated pursuant to this subchapter shall be a violation of this chapter.[1] In addition to the other requirements and prohibitions provided for in this subchapter, the operation of any affected unit to emit sulfur dioxide in excess of allowances held for such unit shall be deemed a violation, with each ton emitted in excess of allowances held constituting a separate violation.

(July 14, 1955, ch. 360, title IV, § 414, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2625.)

§ 7651n. Clean coal technology regulatory incentives

(a) "Clean coal technology" defined

For purposes of this section, ''clean coal technology'' means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, process steam, or industrial products, which is not in widespread use as of November 15, 1990.

[1] So in original.

(b) Revised regulations for clean coal technology demonstrations

(1) Applicability

This subsection applies to physical or operational changes to existing facilities for the sole purpose of installation, operation, cessation, or removal of a temporary or permanent clean coal technology demonstration project. For the purposes of this section, a clean coal technology demonstration project shall mean a project using funds appropriated under the heading ''Department of Energy—Clean Coal Technology'', up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

(2) Temporary projects

Installation, operation, cessation, or removal of a temporary clean coal technology demonstration project that is operated for a period of five years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during and after the project is terminated, shall not subject such facility to the requirements of section 7411 of this title or part C or D of subchapter I.

(3) Permanent projects

For permanent clean coal technology demonstration projects that constitute repowering as defined in section 7651a(*l*)[1] of this title, any qualifying project shall not be subject to standards of performance under section 7411 of this title or to the review and permitting requirements of part C[2] for any pollutant the potential emissions of which will not increase as a result of the demonstration project.

(4) EPA regulations

Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations or interpretive rulings to revise requirements under section 7411 of this title and parts C and D,[2] as appropriate, to facilitate projects consistent in[3] this subsection. With respect to parts C and D,[2] such regulations or rulings shall apply to all areas in which EPA is the permitting authority. In those instances in which the State is the permitting authority under part C or D,[2] any State may adopt and submit to the Administrator for approval revisions to its implementation plan to apply the regulations or rulings promulgated under this subsection.

(c) Exemption for reactivation of very clean units

Physical changes or changes in the method of operation associated with the commencement of commercial operations by a coal-fired utility

[1] So in original. Probably should be section ''7651a(12)''.

[2] See References in Text note below.

[3] So in original. Probably should be ''with''.

unit after a period of discontinued operation shall not subject the unit to the requirements of section 7411 of this title or part C of the Act[2] where the unit (1) has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment, (2) was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent, (3) is equipped with low-NO_x burners prior to the time of commencement, and (4) is otherwise in compliance with the requirements of this chapter.

(July 14, 1955, ch. 360, title IV, §415, as added Pub. L. 101–549, title IV, §401, Nov. 15, 1990, 104 Stat. 2625.)

REFERENCES IN TEXT

Parts C and D and part C of the Act, referred to in subsecs. (b)(3), (4) and (c), probably mean parts C and D of subchapter I of this chapter.

§ 7651o. Contingency guarantee, auctions, reserve

(a) Definitions

For purposes of this section—

(1) The term ''independent power producer'' means any person who owns or operates, in whole or in part, one or more new independent power production facilities.

(2) The term ''new independent power production facility'' means a facility that—

(A) is used for the generation of electric energy, 80 percent or more of which is sold at wholesale;

(B) is nonrecourse project-financed (as such term is defined by the Secretary of Energy within 3 months of November 15, 1990);

(C) does not generate electric energy sold to any affiliate (as defined in section 79b(a)(11)[1] of title 15) of the facility's owner or operator unless the owner or operator of the facility demonstrates that it cannot obtain allowances from the affiliate; and

(D) is a new unit required to hold allowances under this subchapter.

(3) The term ''required allowances'' means the allowances required to operate such unit for so much of the unit's useful life as occurs after January 1, 2000.

(b) Special reserve of allowances

Within 36 months after November 15, 1990, the Administrator shall promulgate regulations establishing a Special Allowance Reserve containing allowances to be sold under this section. For purposes of establishing the Special Allowance Reserve, the Administrator shall withhold—

(1) 2.8 percent of the allocation of allowances for each year from 1995 through 1999 inclusive; and

(2) 2.8 percent of the basic Phase II allowance allocation of allowances for each year beginning in the year 2000

which would (but for this subsection) be issued for each affected unit at an affected source. The Administrator shall record such withholding for purposes of transferring the proceeds of the allowance sales under this subsection. The allowances so withheld shall be deposited in the Reserve under this section.

(c) Direct sale at $1,500 per ton

(1) Subaccount for direct sales

In accordance with regulations under this section, the Administrator shall establish a Direct Sale Subaccount in the Special Allowance Reserve established under this section. The Direct Sale Subaccount shall contain allowances in the amount of 50,000 tons per year for each year beginning in the year 2000.

(2) Sales

Allowances in the subaccount shall be offered for direct sale to any person at the times and in the amounts specified in table 1 at a price of $1,500 per allowance, adjusted by the Consumer Price Index in the same manner as provided in paragraph (3). Requests to purchase allowances from the Direct Sale Subaccount established under paragraph (1) shall be approved in the order of receipt until no allowances remain in such subaccount, except that an opportunity to purchase such allowances shall be provided to the independent power producers referred to in this subsection before such allowances are offered to any other person. Each applicant shall be required to pay 50 percent of the total purchase price of the allowances within 6 months after the approval of the request to purchase. The remainder shall be paid on or before the transfer of the allowances.

TABLE 1—NUMBER OF ALLOWANCES AVAILABLE FOR SALE AT $1,500 PER TON

Year of Sale	Spot Sale (same year)	Advance Sale
1993–1999		25,000
2000 and after	25,000	25,000

Allowances sold in the spot sale in any year are allowances which may only be used in that year (unless banked for use in a later year). Allowances sold in the advance sale in any year are allowances which may only be used in the 7th year after the year in which they are first offered for sale (unless banked for use in a later year).

(3) Entitlement to written guarantee

Any independent power producer that submits an application to the Administrator establishing that such independent power producer—

(A) proposes to construct a new independent power production facility for which allowances are required under this subchapter;

(B) will apply for financing to construct such facility after January 1, 1990, and before the date of the first auction under this section;

(C) has submitted to each owner or operator of an affected unit listed in table A (in section 7651c of this title) a written offer to purchase the required allowances for $750 per ton; and

[1] See References in Text note below.

(D) has not received (within 180 days after submitting offers to purchase under subparagraph (C)) an acceptance of the offer to purchase the required allowances,

shall, within 30 days after submission of such application, be entitled to receive the Administrator's written guarantee (subject to the eligibility requirements set forth in paragraph (4)) that such required allowances will be made available for purchase from the Direct Sale Subaccount established under this subsection and at a guaranteed price. The guaranteed price at which such allowances shall be made available for purchase shall be $1,500 per ton, adjusted by the percentage, if any, by which the Consumer Price Index (as determined under section 7661a(b)(3)(B)(v) of this title) for the year in which the allowance is purchased exceeds the Consumer Price Index for the calendar year 1990.

(4) Eligibility requirements

The guarantee issued by the Administrator under paragraph (3) shall be subject to a demonstration by the independent power producer, satisfactory to the Administrator, that—

(A) the independent power producer has—

(i) made good faith efforts to purchase the required allowances from the owners or operators of affected units to which allowances will be allocated, including efforts to purchase at annual auctions under this section, and from industrial sources that have elected to become affected units pursuant to section 7651i of this title; and

(ii) such bids and efforts were unsuccessful in obtaining the required allowances; and

(B) the independent power producer will continue to make good faith efforts to purchase the required allowances from the owners or operators of affected units and from industrial sources.

(5) Issuance of guaranteed allowances from Direct Sale Subaccount under this section

From the allowances available in the Direct Sale Subaccount established under this subsection, upon payment of the guaranteed price, the Administrator shall issue to any person exercising the right to purchase allowances pursuant to a guarantee under this subsection the allowances covered by such guarantee. Persons to which guarantees under this subsection have been issued shall have the opportunity to purchase allowances pursuant to such guarantee from such subaccount before the allowances in such reserve are offered for sale to any other person.

(6) Proceeds

Notwithstanding section 3302 of title 31 or any other provision of law, the Administrator shall require that the proceeds of any sale under this subsection be transferred, within 90 days after the sale, without charge, on a pro rata basis to the owners or operators of the affected units from whom the allowances were withheld under subsection (b) and that any unsold allowances be transferred to the Subaccount for Auction Sales established under subsection (d). No proceeds of any sale under this subsection shall be held by any officer or employee of the United States or treated for any purpose as revenue to the United States or to the Administrator.

(7) Termination of subaccount

If the Administrator determines that, during any period of 2 consecutive calendar years, less than 20 percent of the allowances available in the subaccount for direct sales established under this subsection have been purchased under this paragraph, the Administrator shall terminate the subaccount and transfer such allowances to the Auction Subaccount under subsection (d).

(d) Auction sales

(1) Subaccount for auctions

The Administrator shall establish an Auction Subaccount in the Special Reserve established under this section. The Auction Subaccount shall contain allowances to be sold at auction under this section in the amount of 150,000 tons per year for each year from 1995 through 1999, inclusive and 250,000 tons per year for each year beginning in the calendar year 2000.

(2) Annual auctions

Commencing in 1993 and in each year thereafter, the Administrator shall conduct auctions at which the allowances referred to in paragraph (1) shall be offered for sale in accordance with regulations promulgated by the Administrator, in consultation with the Secretary of the Treasury, within 12 months of November 15, 1990. The allowances referred to in paragraph (1) shall be offered for sale at auction in the amounts specified in table 2. The auction shall be open to any person. A person wishing to bid for such allowances shall submit (by a date set by the Administrator) to the Administrator (on a sealed bid schedule provided by the Administrator) offers to purchase specified numbers of allowances at specified prices. Such regulations shall specify that the auctioned allowances shall be allocated and sold on the basis of bid price, starting with the highest-priced bid and continuing until all allowances for sale at such auction have been allocated. The regulations shall not permit that a minimum price be set for the purchase of withheld allowances. Allowances purchased at the auction may be used for any purpose and at any time after the auction, subject to the provisions of this subchapter.

TABLE 2—NUMBER OF ALLOWANCES AVAILABLE FOR AUCTION

Year of Sale	Spot Auction (same year)	Advance Auction
1993	50,000*	100,000
1994	50,000*	100,000
1995	50,000*	100,000
1996	150,000	100,000
1997	150,000	100,000
1998	150,000	100,000
1999	150,000	100,000

TABLE 2—NUMBER OF ALLOWANCES AVAILABLE FOR AUCTION—CONTINUED

Year of Sale	Spot Auction (same year)	Advance Auction
2000 and after	100,000	100,000

Allowances sold in the spot sale in any year are allowances which may only be used in that year (unless banked for use in a later year), except as otherwise noted. Allowances sold in the advance auction in any year are allowances which may only be used in the 7th year after the year in which they are first offered for sale (unless banked for use in a later year).

*Available for use only in 1995 (unless banked for use in a later year).

(3) Proceeds

(A) Notwithstanding section 3302 of title 31 or any other provision of law, within 90 days of receipt, the Administrator shall transfer the proceeds from the auction under this section, on a pro rata basis, to the owners or operators of the affected units at an affected source from whom allowances were withheld under subsection (b). No funds transferred from a purchaser to a seller of allowances under this paragraph shall be held by any officer or employee of the United States or treated for any purpose as revenue to the United States or the Administrator.

(B) At the end of each year, any allowances offered for sale but not sold at the auction shall be returned without charge, on a pro rata basis, to the owner or operator of the affected units from whose allocation the allowances were withheld.

(4) Additional auction participants

Any person holding allowances or to whom allowances are allocated by the Administrator may submit those allowances to the Administrator to be offered for sale at auction under this subsection. The proceeds of any such sale shall be transferred at the time of sale by the purchaser to the person submitting such allowances for sale. The holder of allowances offered for sale under this paragraph may specify a minimum sale price. Any person may purchase allowances offered for auction under this paragraph. Such allowances shall be allocated and sold to purchasers on the basis of bid price after the auction under paragraph (2) is complete. No funds transferred from a purchaser to a seller of allowances under this paragraph shall be held by any officer or employee of the United States or treated for any purpose as revenue to the United States or the Administrator.

(5) Recording by EPA

The Administrator shall record and publicly report the nature, prices and results of each auction under this subsection, including the prices of successful bids, and shall record the transfers of allowances as a result of each auction in accordance with the requirements of this section. The transfer of allowances at such auction shall be recorded in accordance with the regulations promulgated by the Administrator under this subchapter.

(e) Changes in sales, auctions, and withholding

Pursuant to rulemaking after public notice and comment the Administrator may at any time after the year 1998 (in the case of advance sales or advance auctions) and 2005 (in the case of spot sales or spot auctions) decrease the number of allowances withheld and sold under this section.

(f) Termination of auctions

The Administrator may terminate the withholding of allowances and the auction sales under this section if the Administrator determines that, during any period of 3 consecutive calendar years after 2002, less than 20 percent of the allowances available in the auction subaccount have been purchased. Pursuant to regulations under this section, the Administrator may by delegation or contract provide for the conduct of sales or auctions under the Administrator's supervision by other departments or agencies of the United States Government or by nongovernmental agencies, groups, or organizations.

(July 14, 1955, ch. 360, title IV, § 416, as added Pub. L. 101–549, title IV, § 401, Nov. 15, 1990, 104 Stat. 2626.)

REFERENCES IN TEXT

Section 79b of title 15, referred to in subsec. (a)(2)(C), was repealed by Pub. L. 109–58, title XII, § 1263, Aug. 8, 2005, 119 Stat. 974. See section 16451(1) of this title.

SUBCHAPTER V—PERMITS

§ 7661. Definitions

As used in this subchapter—

(1) Affected source

The term ''affected source'' shall have the meaning given such term in subchapter IV–A.

(2) Major source

The term ''major source'' means any stationary source (or any group of stationary sources located within a contiguous area and under common control) that is either of the following:

(A) A major source as defined in section 7412 of this title.

(B) A major stationary source as defined in section 7602 of this title or part D of subchapter I.

(3) Schedule of compliance

The term ''schedule of compliance'' means a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with an applicable implementation plan, emission standard, emission limitation, or emission prohibition.

(4) Permitting authority

The term ''permitting authority'' means the Administrator or the air pollution control agency authorized by the Administrator to carry out a permit program under this subchapter.

(July 14, 1955, ch. 360, title V, § 501, as added Pub. L. 101–549, title V, § 501, Nov. 15, 1990, 104 Stat. 2635.)

§ 7661a. Permit programs

(a) Violations

After the effective date of any permit program approved or promulgated under this subchapter, it shall be unlawful for any person to violate any requirement of a permit issued under this subchapter, or to operate an affected source (as provided in subchapter IV–A), a major source, any other source (including an area source) subject to standards or regulations under section 7411 or 7412 of this title, any other source required to have a permit under parts[1] C or D of subchapter I, or any other stationary source in a category designated (in whole or in part) by regulations promulgated by the Administrator (after notice and public comment) which shall include a finding setting forth the basis for such designation, except in compliance with a permit issued by a permitting authority under this subchapter. (Nothing in this subsection shall be construed to alter the applicable requirements of this chapter that a permit be obtained before construction or modification.) The Administrator may, in the Administrator's discretion and consistent with the applicable provisions of this chapter, promulgate regulations to exempt one or more source categories (in whole or in part) from the requirements of this subsection if the Administrator finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories, except that the Administrator may not exempt any major source from such requirements.

(b) Regulations

The Administrator shall promulgate within 12 months after November 15, 1990, regulations establishing the minimum elements of a permit program to be administered by any air pollution control agency. These elements shall include each of the following:

(1) Requirements for permit applications, including a standard application form and criteria for determining in a timely fashion the completeness of applications.

(2) Monitoring and reporting requirements.

(3)(A) A requirement under State or local law or interstate compact that the owner or operator of all sources subject to the requirement to obtain a permit under this subchapter pay an annual fee, or the equivalent over some other period, sufficient to cover all reasonable (direct and indirect) costs required to develop and administer the permit program requirements of this subchapter, including section 7661f of this title, including the reasonable costs of—

(i) reviewing and acting upon any application for such a permit,

(ii) if the owner or operator receives a permit for such source, whether before or after November 15, 1990, implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),

(iii) emissions and ambient monitoring,

(iv) preparing generally applicable regulations, or guidance,

(v) modeling, analyses, and demonstrations, and

(vi) preparing inventories and tracking emissions.

(B) The total amount of fees collected by the permitting authority shall conform to the following requirements:

(i) The Administrator shall not approve a program as meeting the requirements of this paragraph unless the State demonstrates that, except as otherwise provided in subparagraphs[2] (ii) through (v) of this subparagraph, the program will result in the collection, in the aggregate, from all sources subject to subparagraph (A), of an amount not less than $25 per ton of each regulated pollutant, or such other amount as the Administrator may determine adequately reflects the reasonable costs of the permit program.

(ii) As used in this subparagraph, the term ''regulated pollutant'' shall mean (I) a volatile organic compound; (II) each pollutant regulated under section 7411 or 7412 of this title; and (III) each pollutant for which a national primary ambient air quality standard has been promulgated (except that carbon monoxide shall be excluded from this reference).

(iii) In determining the amount under clause (i), the permitting authority is not required to include any amount of regulated pollutant emitted by any source in excess of 4,000 tons per year of that regulated pollutant.

(iv) The requirements of clause (i) shall not apply if the permitting authority demonstrates that collecting an amount less than the amount specified under clause (i) will meet the requirements of subparagraph (A).

(v) The fee calculated under clause (i) shall be increased (consistent with the need to cover the reasonable costs authorized by subparagraph (A)) in each year beginning after 1990, by the percentage, if any, by which the Consumer Price Index for the most recent calendar year ending before the beginning of such year exceeds the Consumer Price Index for the calendar year 1989. For purposes of this clause—

(I) the Consumer Price Index for any calendar year is the average of the Consumer Price Index for all-urban consumers published by the Department of Labor, as of the close of the 12-month period ending on August 31 of each calendar year, and

(II) the revision of the Consumer Price Index which is most consistent with the Consumer Price Index for calendar year 1989 shall be used.

(C)(i) If the Administrator determines, under subsection (d), that the fee provisions of the operating permit program do not meet the requirements of this paragraph, or if the Administrator makes a determination, under subsection (i), that the permitting authority is not adequately administering or enforcing an approved fee program, the Administrator may,

[1] So in original. Probably should be ''part''.

[2] So in original. Probably should be ''clauses''.

in addition to taking any other action authorized under this subchapter, collect reasonable fees from the sources identified under subparagraph (A). Such fees shall be designed solely to cover the Administrator's costs of administering the provisions of the permit program promulgated by the Administrator.

(ii) Any source that fails to pay fees lawfully imposed by the Administrator under this subparagraph shall pay a penalty of 50 percent of the fee amount, plus interest on the fee amount computed in accordance with section 6621(a)(2) of title 26 (relating to computation of interest on underpayment of Federal taxes).

(iii) Any fees, penalties, and interest collected under this subparagraph shall be deposited in a special fund in the United States Treasury for licensing and other services, which thereafter shall be available for appropriation, to remain available until expended, subject to appropriation, to carry out the Agency's activities for which the fees were collected. Any fee required to be collected by a State, local, or interstate agency under this subsection shall be utilized solely to cover all reasonable (direct and indirect) costs required to support the permit program as set forth in subparagraph (A).

(4) Requirements for adequate personnel and funding to administer the program.

(5) A requirement that the permitting authority have adequate authority to:

(A) issue permits and assure compliance by all sources required to have a permit under this subchapter with each applicable standard, regulation or requirement under this chapter;

(B) issue permits for a fixed term, not to exceed 5 years;

(C) assure that upon issuance or renewal permits incorporate emission limitations and other requirements in an applicable implementation plan;

(D) terminate, modify, or revoke and reissue permits for cause;

(E) enforce permits, permit fee requirements, and the requirement to obtain a permit, including authority to recover civil penalties in a maximum amount of not less than $10,000 per day for each violation, and provide appropriate criminal penalties; and

(F) assure that no permit will be issued if the Administrator objects to its issuance in a timely manner under this subchapter.

(6) Adequate, streamlined, and reasonable procedures for expeditiously determining when applications are complete, for processing such applications, for public notice, including offering an opportunity for public comment and a hearing, and for expeditious review of permit actions, including applications, renewals, or revisions, and including an opportunity for judicial review in State court of the final permit action by the applicant, any person who participated in the public comment process, and any other person who could obtain judicial review of that action under applicable law.

(7) To ensure against unreasonable delay by the permitting authority, adequate authority and procedures to provide that a failure of such permitting authority to act on a permit application or permit renewal application (in accordance with the time periods specified in section 7661b of this title or, as appropriate, subchapter IV–A) shall be treated as a final permit action solely for purposes of obtaining judicial review in State court of an action brought by any person referred to in paragraph (6) to require that action be taken by the permitting authority on such application without additional delay.

(8) Authority, and reasonable procedures consistent with the need for expeditious action by the permitting authority on permit applications and related matters, to make available to the public any permit application, compliance plan, permit, and monitoring or compliance report under section 7661b(e) of this title, subject to the provisions of section 7414(c) of this title.

(9) A requirement that the permitting authority, in the case of permits with a term of 3 or more years for major sources, shall require revisions to the permit to incorporate applicable standards and regulations promulgated under this chapter after the issuance of such permit. Such revisions shall occur as expeditiously as practicable and consistent with the procedures established under paragraph (6) but not later than 18 months after the promulgation of such standards and regulations. No such revision shall be required if the effective date of the standards or regulations is a date after the expiration of the permit term. Such permit revision shall be treated as a permit renewal if it complies with the requirements of this subchapter regarding renewals.

(10) Provisions to allow changes within a permitted facility (or one operating pursuant to section 7661b(d) of this title) without requiring a permit revision, if the changes are not modifications under any provision of subchapter I and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions:[3] *Provided*, That the facility provides the Administrator and the permitting authority with written notification in advance of the proposed changes which shall be a minimum of 7 days, unless the permitting authority provides in its regulations a different timeframe for emergencies.

(c) Single permit

A single permit may be issued for a facility with multiple sources.

(d) Submission and approval

(1) Not later than 3 years after November 15, 1990, the Governor of each State shall develop and submit to the Administrator a permit program under State or local law or under an interstate compact meeting the requirements of this subchapter. In addition, the Governor shall submit a legal opinion from the attorney general (or the attorney for those State air pollution control agencies that have independent legal counsel), or from the chief legal officer of an interstate agency, that the laws of the State, locality, or the interstate compact provide ade-

[3] So in original. A closing parenthesis probably should precede the colon.

quate authority to carry out the program. Not later than 1 year after receiving a program, and after notice and opportunity for public comment, the Administrator shall approve or disapprove such program, in whole or in part. The Administrator may approve a program to the extent that the program meets the requirements of this chapter, including the regulations issued under subsection (b). If the program is disapproved, in whole or in part, the Administrator shall notify the Governor of any revisions or modifications necessary to obtain approval. The Governor shall revise and resubmit the program for review under this section within 180 days after receiving notification.

(2)(A) If the Governor does not submit a program as required under paragraph (1) or if the Administrator disapproves a program submitted by the Governor under paragraph (1), in whole or in part, the Administrator may, prior to the expiration of the 18-month period referred to in subparagraph (B), in the Administrator's discretion, apply any of the sanctions specified in section 7509(b) of this title.

(B) If the Governor does not submit a program as required under paragraph (1), or if the Administrator disapproves any such program submitted by the Governor under paragraph (1), in whole or in part, 18 months after the date required for such submittal or the date of such disapproval, as the case may be, the Administrator shall apply sanctions under section 7509(b) of this title in the same manner and subject to the same deadlines and other conditions as are applicable in the case of a determination, disapproval, or finding under section 7509(a) of this title.

(C) The sanctions under section 7509(b)(2) of this title shall not apply pursuant to this paragraph in any area unless the failure to submit or the disapproval referred to in subparagraph (A) or (B) relates to an air pollutant for which such area has been designated a nonattainment area (as defined in part D of subchapter I).

(3) If a program meeting the requirements of this subchapter has not been approved in whole for any State, the Administrator shall, 2 years after the date required for submission of such a program under paragraph (1), promulgate, administer, and enforce a program under this subchapter for that State.

(e) Suspension

The Administrator shall suspend the issuance of permits promptly upon publication of notice of approval of a permit program under this section, but may, in such notice, retain jurisdiction over permits that have been federally issued, but for which the administrative or judicial review process is not complete. The Administrator shall continue to administer and enforce federally issued permits under this subchapter until they are replaced by a permit issued by a permitting program. Nothing in this subsection should be construed to limit the Administrator's ability to enforce permits issued by a State.

(f) Prohibition

No partial permit program shall be approved unless, at a minimum, it applies, and ensures compliance with, this subchapter and each of the following:

(1) All requirements established under subchapter IV–A applicable to ''affected sources''.

(2) All requirements established under section 7412 of this title applicable to ''major sources'', ''area sources,'' and ''new sources''.

(3) All requirements of subchapter I (other than section 7412 of this title) applicable to sources required to have a permit under this subchapter.

Approval of a partial program shall not relieve the State of its obligation to submit a complete program, nor from the application of any sanctions under this chapter for failure to submit an approvable permit program.

(g) Interim approval

If a program (including a partial permit program) submitted under this subchapter substantially meets the requirements of this subchapter, but is not fully approvable, the Administrator may by rule grant the program interim approval. In the notice of final rulemaking, the Administrator shall specify the changes that must be made before the program can receive full approval. An interim approval under this subsection shall expire on a date set by the Administrator not later than 2 years after such approval, and may not be renewed. For the period of any such interim approval, the provisions of subsection (d)(2), and the obligation of the Administrator to promulgate a program under this subchapter for the State pursuant to subsection (d)(3), shall be suspended. Such provisions and such obligation of the Administrator shall apply after the expiration of such interim approval.

(h) Effective date

The effective date of a permit program, or partial or interim program, approved under this subchapter, shall be the effective date of approval by the Administrator. The effective date of a permit program, or partial permit program, promulgated by the Administrator shall be the date of promulgation.

(i) Administration and enforcement

(1) Whenever the Administrator makes a determination that a permitting authority is not adequately administering and enforcing a program, or portion thereof, in accordance with the requirements of this subchapter, the Administrator shall provide notice to the State and may, prior to the expiration of the 18-month period referred to in paragraph (2), in the Administrator's discretion, apply any of the sanctions specified in section 7509(b) of this title.

(2) Whenever the Administrator makes a determination that a permitting authority is not adequately administering and enforcing a program, or portion thereof, in accordance with the requirements of this subchapter, 18 months after the date of the notice under paragraph (1), the Administrator shall apply the sanctions under section 7509(b) of this title in the same manner and subject to the same deadlines and other conditions as are applicable in the case of a determination, disapproval, or finding under section 7509(a) of this title.

(3) The sanctions under section 7509(b)(2) of this title shall not apply pursuant to this subsection in any area unless the failure to adequately enforce and administer the program re-

lates to an air pollutant for which such area has been designated a nonattainment area.

(4) Whenever the Administrator has made a finding under paragraph (1) with respect to any State, unless the State has corrected such deficiency within 18 months after the date of such finding, the Administrator shall, 2 years after the date of such finding, promulgate, administer, and enforce a program under this subchapter for that State. Nothing in this paragraph shall be construed to affect the validity of a program which has been approved under this subchapter or the authority of any permitting authority acting under such program until such time as such program is promulgated by the Administrator under this paragraph.

(July 14, 1955, ch. 360, title V, § 502, as added Pub. L. 101–549, title V, § 501, Nov. 15, 1990, 104 Stat. 2635.)

§ 7661b. Permit applications

(a) Applicable date

Any source specified in section 7661a(a) of this title shall become subject to a permit program, and required to have a permit, on the later of the following dates—

(1) the effective date of a permit program or partial or interim permit program applicable to the source; or

(2) the date such source becomes subject to section 7661a(a) of this title.

(b) Compliance plan

(1) The regulations required by section 7661a(b) of this title shall include a requirement that the applicant submit with the permit application a compliance plan describing how the source will comply with all applicable requirements under this chapter. The compliance plan shall include a schedule of compliance, and a schedule under which the permittee will submit progress reports to the permitting authority no less frequently than every 6 months.

(2) The regulations shall further require the permittee to periodically (but no less frequently than annually) certify that the facility is in compliance with any applicable requirements of the permit, and to promptly report any deviations from permit requirements to the permitting authority.

(c) Deadline

Any person required to have a permit shall, not later than 12 months after the date on which the source becomes subject to a permit program approved or promulgated under this subchapter, or such earlier date as the permitting authority may establish, submit to the permitting authority a compliance plan and an application for a permit signed by a responsible official, who shall certify the accuracy of the information submitted. The permitting authority shall approve or disapprove a completed application (consistent with the procedures established under this subchapter for consideration of such applications), and shall issue or deny the permit, within 18 months after the date of receipt thereof, except that the permitting authority shall establish a phased schedule for acting on permit applications submitted within the first full year after the effective date of a permit program (or a partial or interim program). Any such schedule shall assure that at least one-third of such permits will be acted on by such authority annually over a period of not to exceed 3 years after such effective date. Such authority shall establish reasonable procedures to prioritize such approval or disapproval actions in the case of applications for construction or modification under the applicable requirements of this chapter.

(d) Timely and complete applications

Except for sources required to have a permit before construction or modification under the applicable requirements of this chapter, if an applicant has submitted a timely and complete application for a permit required by this subchapter (including renewals), but final action has not been taken on such application, the source's failure to have a permit shall not be a violation of this chapter, unless the delay in final action was due to the failure of the applicant timely to submit information required or requested to process the application. No source required to have a permit under this subchapter shall be in violation of section 7661a(a) of this title before the date on which the source is required to submit an application under subsection (c).

(e) Copies; availability

A copy of each permit application, compliance plan (including the schedule of compliance), emissions or compliance monitoring report, certification, and each permit issued under this subchapter, shall be available to the public. If an applicant or permittee is required to submit information entitled to protection from disclosure under section 7414(c) of this title, the applicant or permittee may submit such information separately. The requirements of section 7414(c) of this title shall apply to such information. The contents of a permit shall not be entitled to protection under section 7414(c) of this title.

(July 14, 1955, ch. 360, title V, § 503, as added Pub. L. 101–549, title V, § 501, Nov. 15, 1990, 104 Stat. 2641.)

§ 7661c. Permit requirements and conditions

(a) Conditions

Each permit issued under this subchapter shall include enforceable emission limitations and standards, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring, and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.

(b) Monitoring and analysis

The Administrator may by rule prescribe procedures and methods for determining compliance and for monitoring and analysis of pollutants regulated under this chapter, but continuous emissions monitoring need not be required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance. Nothing in this subsection shall be construed to affect any continu-

ous emissions monitoring requirement of subchapter IV–A, or where required elsewhere in this chapter.

(c) Inspection, entry, monitoring, certification, and reporting

Each permit issued under this subchapter shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions. Such monitoring and reporting requirements shall conform to any applicable regulation under subsection (b). Any report required to be submitted by a permit issued to a corporation under this subchapter shall be signed by a responsible corporate official, who shall certify its accuracy.

(d) General permits

The permitting authority may, after notice and opportunity for public hearing, issue a general permit covering numerous similar sources. Any general permit shall comply with all requirements applicable to permits under this subchapter. No source covered by a general permit shall thereby be relieved from the obligation to file an application under section 7661b of this title.

(e) Temporary sources

The permitting authority may issue a single permit authorizing emissions from similar operations at multiple temporary locations. No such permit shall be issued unless it includes conditions that will assure compliance with all the requirements of this chapter at all authorized locations, including, but not limited to, ambient standards and compliance with any applicable increment or visibility requirements under part C of subchapter I. Any such permit shall in addition require the owner or operator to notify the permitting authority in advance of each change in location. The permitting authority may require a separate permit fee for operations at each location.

(f) Permit shield

Compliance with a permit issued in accordance with this subchapter shall be deemed compliance with section 7661a of this title. Except as otherwise provided by the Administrator by rule, the permit may also provide that compliance with the permit shall be deemed compliance with other applicable provisions of this chapter that relate to the permittee if—

(1) the permit includes the applicable requirements of such provisions, or

(2) the permitting authority in acting on the permit application makes a determination relating to the permittee that such other provisions (which shall be referred to in such determination) are not applicable and the permit includes the determination or a concise summary thereof.

Nothing in the preceding sentence shall alter or affect the provisions of section 7603 of this title, including the authority of the Administrator under that section.

(July 14, 1955, ch. 360, title V, § 504, as added Pub. L. 101–549, title V, § 501, Nov. 15, 1990, 104 Stat. 2642.)

§ 7661d. Notification to Administrator and contiguous States

(a) Transmission and notice

(1) Each permitting authority—

(A) shall transmit to the Administrator a copy of each permit application (and any application for a permit modification or renewal) or such portion thereof, including any compliance plan, as the Administrator may require to effectively review the application and otherwise to carry out the Administrator's responsibilities under this chapter, and

(B) shall provide to the Administrator a copy of each permit proposed to be issued and issued as a final permit.

(2) The permitting authority shall notify all States—

(A) whose air quality may be affected and that are contiguous to the State in which the emission originates, or

(B) that are within 50 miles of the source,

of each permit application or proposed permit forwarded to the Administrator under this section, and shall provide an opportunity for such States to submit written recommendations respecting the issuance of the permit and its terms and conditions. If any part of those recommendations are not accepted by the permitting authority, such authority shall notify the State submitting the recommendations and the Administrator in writing of its failure to accept those recommendations and the reasons therefor.

(b) Objection by EPA

(1) If any permit contains provisions that are determined by the Administrator as not in compliance with the applicable requirements of this chapter, including the requirements of an applicable implementation plan, the Administrator shall, in accordance with this subsection, object to its issuance. The permitting authority shall respond in writing if the Administrator (A) within 45 days after receiving a copy of the proposed permit under subsection (a)(1), or (B) within 45 days after receiving notification under subsection (a)(2), objects in writing to its issuance as not in compliance with such requirements. With the objection, the Administrator shall provide a statement of the reasons for the objection. A copy of the objection and statement shall be provided to the applicant.

(2) If the Administrator does not object in writing to the issuance of a permit pursuant to paragraph (1), any person may petition the Administrator within 60 days after the expiration of the 45-day review period specified in paragraph (1) to take such action. A copy of such petition shall be provided to the permitting authority and the applicant by the petitioner. The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting agency (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). The petition shall identify all such objections. If the permit has been issued by the per-

mitting agency, such petition shall not postpone the effectiveness of the permit. The Administrator shall grant or deny such petition within 60 days after the petition is filed. The Administrator shall issue an objection within such period if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of this chapter, including the requirements of the applicable implementation plan. Any denial of such petition shall be subject to judicial review under section 7607 of this title. The Administrator shall include in regulations under this subchapter provisions to implement this paragraph. The Administrator may not delegate the requirements of this paragraph.

(3) Upon receipt of an objection by the Administrator under this subsection, the permitting authority may not issue the permit unless it is revised and issued in accordance with subsection (c). If the permitting authority has issued a permit prior to receipt of an objection by the Administrator under paragraph (2) of this subsection, the Administrator shall modify, terminate, or revoke such permit and the permitting authority may thereafter only issue a revised permit in accordance with subsection (c).

(c) Issuance or denial

If the permitting authority fails, within 90 days after the date of an objection under subsection (b), to submit a permit revised to meet the objection, the Administrator shall issue or deny the permit in accordance with the requirements of this subchapter. No objection shall be subject to judicial review until the Administrator takes final action to issue or deny a permit under this subsection.

(d) Waiver of notification requirements

(1) The Administrator may waive the requirements of subsections (a) and (b) at the time of approval of a permit program under this subchapter for any category (including any class, type, or size within such category) of sources covered by the program other than major sources.

(2) The Administrator may, by regulation, establish categories of sources (including any class, type, or size within such category) to which the requirements of subsections (a) and (b) shall not apply. The preceding sentence shall not apply to major sources.

(3) The Administrator may exclude from any waiver under this subsection notification under subsection (a)(2). Any waiver granted under this subsection may be revoked or modified by the Administrator by rule.

(e) Refusal of permitting authority to terminate, modify, or revoke and reissue

If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit under this subchapter, the Administrator shall notify the permitting authority and the source of the Administrator's finding. The permitting authority shall, within 90 days after receipt of such notification, forward to the Administrator under this section a proposed determination of termination, modification, or revocation and reissuance, as appropriate. The Administrator may extend such 90 day period for an additional 90 days if the Administrator finds that a new or revised permit application is necessary, or that the permitting authority must require the permittee to submit additional information. The Administrator may review such proposed determination under the provisions of subsections (a) and (b). If the permitting authority fails to submit the required proposed determination, or if the Administrator objects and the permitting authority fails to resolve the objection within 90 days, the Administrator may, after notice and in accordance with fair and reasonable procedures, terminate, modify, or revoke and reissue the permit.

(July 14, 1955, ch. 360, title V, § 505, as added Pub. L. 101–549, title V, § 501, Nov. 15, 1990, 104 Stat. 2643.)

§ 7661e. Other authorities

(a) In general

Nothing in this subchapter shall prevent a State, or interstate permitting authority, from establishing additional permitting requirements not inconsistent with this chapter.

(b) Permits implementing acid rain provisions

The provisions of this subchapter, including provisions regarding schedules for submission and approval or disapproval of permit applications, shall apply to permits implementing the requirements of subchapter IV–A except as modified by that subchapter.

(July 14, 1955, ch. 360, title V, § 506, as added Pub. L. 101–549, title V, § 501, Nov. 15, 1990, 104 Stat. 2645.)

§ 7661f. Small business stationary source technical and environmental compliance assistance program

(a) Plan revisions

Consistent with sections 7410 and 7412 of this title, each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator as part of the State implementation plan for such State or as a revision to such State implementation plan under section 7410 of this title, plans for establishing a small business stationary source technical and environmental compliance assistance program. Such submission shall be made within 24 months after November 15, 1990. The Administrator shall approve such program if it includes each of the following:

(1) Adequate mechanisms for developing, collecting, and coordinating information concerning compliance methods and technologies for small business stationary sources, and programs to encourage lawful cooperation among such sources and other persons to further compliance with this chapter.

(2) Adequate mechanisms for assisting small business stationary sources with pollution prevention and accidental release detection and prevention, including providing information concerning alternative technologies, process changes, products, and methods of operation that help reduce air pollution.

(3) A designated State office within the relevant State agency to serve as ombudsman for

small business stationary sources in connection with the implementation of this chapter.

(4) A compliance assistance program for small business stationary sources which assists small business stationary sources in determining applicable requirements and in receiving permits under this chapter in a timely and efficient manner.

(5) Adequate mechanisms to assure that small business stationary sources receive notice of their rights under this chapter in such manner and form as to assure reasonably adequate time for such sources to evaluate compliance methods and any relevant or applicable proposed or final regulation or standard issued under this chapter.

(6) Adequate mechanisms for informing small business stationary sources of their obligations under this chapter, including mechanisms for referring such sources to qualified auditors or, at the option of the State, for providing audits of the operations of such sources to determine compliance with this chapter.

(7) Procedures for consideration of requests from a small business stationary source for modification of—

(A) any work practice or technological method of compliance, or

(B) the schedule of milestones for implementing such work practice or method of compliance preceding any applicable compliance date,

based on the technological and financial capability of any such small business stationary source. No such modification may be granted unless it is in compliance with the applicable requirements of this chapter, including the requirements of the applicable implementation plan. Where such applicable requirements are set forth in Federal regulations, only modifications authorized in such regulations may be allowed.

(b) Program

The Administrator shall establish within 9 months after November 15, 1990, a small business stationary source technical and environmental compliance assistance program. Such program shall—

(1) assist the States in the development of the program required under subsection (a) (relating to assistance for small business stationary sources);

(2) issue guidance for the use of the States in the implementation of these programs that includes alternative control technologies and pollution prevention methods applicable to small business stationary sources; and

(3) provide for implementation of the program provisions required under subsection (a)(4) in any State that fails to submit such a program under that subsection.

(c) Eligibility

(1) Except as provided in paragraphs (2) and (3), for purposes of this section, the term ''small business stationary source'' means a stationary source that—

(A) is owned or operated by a person that employs 100 or fewer individuals,[1]

(B) is a small business concern as defined in the Small Business Act [15 U.S.C. 631 et seq.];

(C) is not a major stationary source;

(D) does not emit 50 tons or more per year of any regulated pollutant; and

(E) emits less than 75 tons per year of all regulated pollutants.

(2) Upon petition by a source, the State may, after notice and opportunity for public comment, include as a small business stationary source for purposes of this section any stationary source which does not meet the criteria of subparagraphs[2] (C), (D), or (E) of paragraph (1) but which does not emit more than 100 tons per year of all regulated pollutants.

(3)(A) The Administrator, in consultation with the Administrator of the Small Business Administration and after providing notice and opportunity for public comment, may exclude from the small business stationary source definition under this section any category or subcategory of sources that the Administrator determines to have sufficient technical and financial capabilities to meet the requirements of this chapter without the application of this subsection.

(B) The State, in consultation with the Administrator and the Administrator of the Small Business Administration and after providing notice and opportunity for public hearing, may exclude from the small business stationary source definition under this section any category or subcategory of sources that the State determines to have sufficient technical and financial capabilities to meet the requirements of this chapter without the application of this subsection.

(d) Monitoring

The Administrator shall direct the Agency's Office of Small and Disadvantaged Business Utilization through the Small Business Ombudsman (hereinafter in this section referred to as the ''Ombudsman'') to monitor the small business stationary source technical and environmental compliance assistance program under this section. In carrying out such monitoring activities, the Ombudsman shall—

(1) render advisory opinions on the overall effectiveness of the Small Business Stationary Source Technical and Environmental Compliance Assistance Program, difficulties encountered, and degree and severity of enforcement;

(2) make periodic reports to the Congress on the compliance of the Small Business Stationary Source Technical and Environmental Compliance Assistance Program with the requirements of the Paperwork Reduction Act,[3] the Regulatory Flexibility Act [5 U.S.C. 601 et seq.], and the Equal Access to Justice Act;

(3) review information to be issued by the Small Business Stationary Source Technical and Environmental Compliance Assistance Program for small business stationary sources to ensure that the information is understandable by the layperson; and

(4) have the Small Business Stationary Source Technical and Environmental Compliance Assistance Program serve as the sec-

[1] So in original. The comma probably should be a semicolon.

[2] So in original. Probably should be ''subparagraph''.

[3] See References in Text note below.

retariat for the development and dissemination of such reports and advisory opinions.

(e) Compliance Advisory Panel

(1) There shall be created a Compliance Advisory Panel (hereinafter referred to as the ''Panel'') on the State level of not less than 7 individuals. This Panel shall—

(A) render advisory opinions concerning the effectiveness of the small business stationary source technical and environmental compliance assistance program, difficulties encountered, and degree and severity of enforcement;

(B) make periodic reports to the Administrator concerning the compliance of the State Small Business Stationary Source Technical and Environmental Compliance Assistance Program with the requirements of the Paperwork Reduction Act,[3] the Regulatory Flexibility Act [5 U.S.C. 601 et seq.], and the Equal Access to Justice Act;

(C) review information for small business stationary sources to assure such information is understandable by the layperson; and

(D) have the Small Business Stationary Source Technical and Environmental Compliance Assistance Program serve as the secretariat for the development and dissemination of such reports and advisory opinions.

(2) The Panel shall consist of—

(A) 2 members, who are not owners, or representatives of owners, of small business stationary sources, selected by the Governor to represent the general public;

(B) 2 members selected by the State legislature who are owners, or who represent owners, of small business stationary sources (1 member each by the majority and minority leadership of the lower house, or in the case of a unicameral State legislature, 2 members each shall be selected by the majority leadership and the minority leadership, respectively, of such legislature, and subparagraph (C) shall not apply);

(C) 2 members selected by the State legislature who are owners, or who represent owners, of small business stationary sources (1 member each by the majority and minority leadership of the upper house, or the equivalent State entity); and

(D) 1 member selected by the head of the department or agency of the State responsible for air pollution permit programs to represent that agency.

(f) Fees

The State (or the Administrator) may reduce any fee required under this chapter to take into account the financial resources of small business stationary sources.

(g) Continuous emission monitors

In developing regulations and CTGs under this chapter that contain continuous emission monitoring requirements, the Administrator, consistent with the requirements of this chapter, before applying such requirements to small business stationary sources, shall consider the necessity and appropriateness of such requirements for such sources. Nothing in this subsection shall affect the applicability of subchapter IV–A provisions relating to continuous emissions monitoring.

(h) Control technique guidelines

The Administrator shall consider, consistent with the requirements of this chapter, the size, type, and technical capabilities of small business stationary sources (and sources which are eligible under subsection (c)(2) to be treated as small business stationary sources) in developing CTGs applicable to such sources under this chapter.

(July 14, 1955, ch. 360, title V, §507, as added Pub. L. 101–549, title V, §501, Nov. 15, 1990, 104 Stat. 2645.)

REFERENCES IN TEXT

The Small Business Act, referred to in subsec. (c)(1)(B), is Pub. L. 85–536, §2(1 et seq.), July 18, 1958, 72 Stat. 384, which is classified generally to chapter 14A (§631 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 631 of Title 15 and Tables.

The Paperwork Reduction Act, referred to in subsecs. (d)(2) and (e)(1)(B), probably means the Paperwork Reduction Act of 1980, Pub. L. 96–511, Dec. 11, 1980, 94 Stat. 2812, as amended, which was classified principally to chapter 35 (§3501 et seq.) of Title 44, Public Printing and Documents, prior to the general amendment of that chapter by Pub. L. 104–13, §2, May 22, 1995, 109 Stat. 163. For complete classification of this Act to the Code, see Short Title of 1980 Amendment note set out under section 101 of Title 44 and Tables.

The Regulatory Flexibility Act, referred to in subsecs. (d)(2) and (e)(1)(B), is Pub. L. 96–354, Sept. 19, 1980, 94 Stat. 1164, which is classified generally to chapter 6 (§601 et seq.) of Title 5, Government Organization and Employees. For complete classification of this Act to the Code, see Short Title note set out under section 601 of Title 5 and Tables.

The Equal Access to Justice Act, referred to in subsecs. (d)(2) and (e)(1)(B), is title II of Pub. L. 96–481, Oct. 21, 1980, 94 Stat. 2325. For complete classification of this Act to the Code, see Short Title note set out under section 504 of Title 5.

SUBCHAPTER VI—STRATOSPHERIC OZONE PROTECTION

§ 7671. Definitions

As used in this subchapter—

(1) Appliance

The term ''appliance'' means any device which contains and uses a class I or class II substance as a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer.

(2) Baseline year

The term ''baseline year'' means—

(A) the calendar year 1986, in the case of any class I substance listed in Group I or II under section 7671a(a) of this title,

(B) the calendar year 1989, in the case of any class I substance listed in Group III, IV, or V under section 7671a(a) of this title, and

(C) a representative calendar year selected by the Administrator, in the case of—

(i) any substance added to the list of class I substances after the publication of the initial list under section 7671a(a) of this title, and

(ii) any class II substance.

(3) Class I substance

The term ''class I substance'' means each of the substances listed as provided in section 7671a(a) of this title.

(4) Class II substance

The term ''class II substance'' means each of the substances listed as provided in section 7671a(b) of this title.

(5) Commissioner

The term ''Commissioner'' means the Commissioner of the Food and Drug Administration.

(6) Consumption

The term ''consumption'' means, with respect to any substance, the amount of that substance produced in the United States, plus the amount imported, minus the amount exported to Parties to the Montreal Protocol. Such term shall be construed in a manner consistent with the Montreal Protocol.

(7) Import

The term ''import'' means to land on, bring into, or introduce into, or attempt to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States, whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States.

(8) Medical device

The term ''medical device'' means any device (as defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321)), diagnostic product, drug (as defined in the Federal Food, Drug, and Cosmetic Act), and drug delivery system—

(A) if such device, product, drug, or drug delivery system utilizes a class I or class II substance for which no safe and effective alternative has been developed, and where necessary, approved by the Commissioner; and

(B) if such device, product, drug, or drug delivery system, has, after notice and opportunity for public comment, been approved and determined to be essential by the Commissioner in consultation with the Administrator.

(9) Montreal Protocol

The terms ''Montreal Protocol'' and ''the Protocol'' mean the Montreal Protocol on Substances that Deplete the Ozone Layer, a protocol to the Vienna Convention for the Protection of the Ozone Layer, including adjustments adopted by Parties thereto and amendments that have entered into force.

(10) Ozone-depletion potential

The term ''ozone-depletion potential'' means a factor established by the Administrator to reflect the ozone-depletion potential of a substance, on a mass per kilogram basis, as compared to chlorofluorocarbon-11 (CFC–11). Such factor shall be based upon the substance's atmospheric lifetime, the molecular weight of bromine and chlorine, and the substance's ability to be photolytically disassociated, and upon other factors determined to be an accurate measure of relative ozone-depletion potential.

(11) Produce, produced, and production

The terms ''produce'', ''produced'', and ''production'', refer to the manufacture of a substance from any raw material or feedstock chemical, but such terms do not include—

(A) the manufacture of a substance that is used and entirely consumed (except for trace quantities) in the manufacture of other chemicals, or

(B) the reuse or recycling of a substance.

(July 14, 1955, ch. 360, title VI, § 601, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2649.)

REFERENCES IN TEXT

The Federal Food, Drug, and Cosmetic Act, referred to in par. (8), is act June 25, 1938, ch. 675, 52 Stat. 1040, as amended, which is classified generally to chapter 9 (§ 301 et seq.) of Title 21, Food and Drugs. For complete classification of this Act to the Code, see section 301 of Title 21 and Tables.

§ 7671a. Listing of class I and class II substances

(a) List of class I substances

Within 60 days after November 15, 1990, the Administrator shall publish an initial list of class I substances, which list shall contain the following substances:

Group I
chlorofluorocarbon-11 (CFC–11)
chlorofluorocarbon-12 (CFC–12)
chlorofluorocarbon-113 (CFC–113)
chlorofluorocarbon-114 (CFC–114)
chlorofluorocarbon-115 (CFC–115)

Group II
halon-1211
halon-1301
halon-2402

Group III
chlorofluorocarbon-13 (CFC–13)
chlorofluorocarbon-111 (CFC–111)
chlorofluorocarbon-112 (CFC–112)
chlorofluorocarbon-211 (CFC–211)
chlorofluorocarbon-212 (CFC–212)
chlorofluorocarbon-213 (CFC–213)
chlorofluorocarbon-214 (CFC–214)
chlorofluorocarbon-215 (CFC–215)
chlorofluorocarbon-216 (CFC–216)
chlorofluorocarbon-217 (CFC–217)

Group IV
carbon tetrachloride

Group V
methyl chloroform

The initial list under this subsection shall also include the isomers of the substances listed above, other than 1,1,2-trichloroethane (an isomer of methyl chloroform). Pursuant to subsection (c), the Administrator shall add to the list of class I substances any other substance that the Administrator finds causes or contributes significantly to harmful effects on the stratospheric ozone layer. The Administrator shall, pursuant to subsection (c), add to such list all substances that the Administrator determines have an ozone depletion potential of 0.2 or greater.

(b) List of class II substances

Simultaneously with publication of the initial list of class I substances, the Administrator shall publish an initial list of class II substances, which shall contain the following substances:

hydrochlorofluorocarbon-21 (HCFC–21)
hydrochlorofluorocarbon-22 (HCFC–22)
hydrochlorofluorocarbon-31 (HCFC–31)
hydrochlorofluorocarbon-121 (HCFC–121)
hydrochlorofluorocarbon-122 (HCFC–122)
hydrochlorofluorocarbon-123 (HCFC–123)
hydrochlorofluorocarbon-124 (HCFC–124)
hydrochlorofluorocarbon-131 (HCFC–131)
hydrochlorofluorocarbon-132 (HCFC–132)
hydrochlorofluorocarbon-133 (HCFC–133)
hydrochlorofluorocarbon-141 (HCFC–141)
hydrochlorofluorocarbon-142 (HCFC–142)
hydrochlorofluorocarbon-221 (HCFC–221)
hydrochlorofluorocarbon-222 (HCFC–222)
hydrochlorofluorocarbon-223 (HCFC–223)
hydrochlorofluorocarbon-224 (HCFC–224)
hydrochlorofluorocarbon-225 (HCFC–225)
hydrochlorofluorocarbon-226 (HCFC–226)
hydrochlorofluorocarbon-231 (HCFC–231)
hydrochlorofluorocarbon-232 (HCFC–232)
hydrochlorofluorocarbon-233 (HCFC–233)
hydrochlorofluorocarbon-234 (HCFC–234)
hydrochlorofluorocarbon-235 (HCFC–235)
hydrochlorofluorocarbon-241 (HCFC–241)
hydrochlorofluorocarbon-242 (HCFC–242)
hydrochlorofluorocarbon-243 (HCFC–243)
hydrochlorofluorocarbon-244 (HCFC–244)
hydrochlorofluorocarbon-251 (HCFC–251)
hydrochlorofluorocarbon-252 (HCFC–252)
hydrochlorofluorocarbon-253 (HCFC–253)
hydrochlorofluorocarbon-261 (HCFC–261)
hydrochlorofluorocarbon-262 (HCFC–262)
hydrochlorofluorocarbon-271 (HCFC–271)

The initial list under this subsection shall also include the isomers of the substances listed above. Pursuant to subsection (c), the Administrator shall add to the list of class II substances any other substance that the Administrator finds is known or may reasonably be anticipated to cause or contribute to harmful effects on the stratospheric ozone layer.

(c) Additions to the lists

(1) The Administrator may add, by rule, in accordance with the criteria set forth in subsection (a) or (b), as the case may be, any substance to the list of class I or class II substances under subsection (a) or (b). For purposes of exchanges under section 7661f[1] of this title, whenever a substance is added to the list of class I substances the Administrator shall, to the extent consistent with the Montreal Protocol, assign such substance to existing Group I, II, III, IV, or V or place such substance in a new Group.

(2) Periodically, but not less frequently than every 3 years after November 15, 1990, the Administrator shall list, by rule, as additional class I or class II substances those substances which the Administrator finds meet the criteria of subsection (a) or (b), as the case may be.

(3) At any time, any person may petition the Administrator to add a substance to the list of class I or class II substances. Pursuant to the criteria set forth in subsection (a) or (b) as the case may be, within 180 days after receiving such a petition, the Administrator shall either propose to add the substance to such list or publish an explanation of the petition denial. In any case where the Administrator proposes to add a substance to such list, the Administrator shall add, by rule, (or make a final determination not to add) such substance to such list within 1 year after receiving such petition. Any petition under this paragraph shall include a showing by the petitioner that there are data on the substance adequate to support the petition. If the Administrator determines that information on the substance is not sufficient to make a determination under this paragraph, the Administrator shall use any authority available to the Administrator, under any law administered by the Administrator, to acquire such information.

(4) Only a class II substance which is added to the list of class I substances may be removed from the list of class II substances. No substance referred to in subsection (a), including methyl chloroform, may be removed from the list of class I substances.

(d) New listed substances

In the case of any substance added to the list of class I or class II substances after publication of the initial list of such substances under this section, the Administrator may extend any schedule or compliance deadline contained in section 7671c or 7671d of this title to a later date than specified in such sections if such schedule or deadline is unattainable, considering when such substance is added to the list. No extension under this subsection may extend the date for termination of production of any class I substance to a date more than 7 years after January 1 of the year after the year in which the substance is added to the list of class I substances. No extension under this subsection may extend the date for termination of production of any class II substance to a date more than 10 years after January 1 of the year after the year in which the substance is added to the list of class II substances.

(e) Ozone-depletion and global warming potential

Simultaneously with publication of the lists under this section and simultaneously with any addition to either of such lists, the Administrator shall assign to each listed substance a numerical value representing the substance's ozone-depletion potential. In addition, the Administrator shall publish the chlorine and bromine loading potential and the atmospheric lifetime of each listed substance. One year after November 15, 1990 (one year after the addition of a substance to either of such lists in the case of a substance added after the publication of the initial lists of such substances), and after notice and opportunity for public comment, the Administrator shall publish the global warming potential of each listed substance. The preceding sentence shall not be construed to be the basis of any additional regulation under this chapter. In the case of the substances referred to in table 1, the ozone-depletion potential shall be as specified in table 1, unless the Administrator adjusts the substance's ozone-depletion potential based on criteria referred to in section 7671(10) of this title:

[1] So in original. Probably should be section ''7671f''.

TABLE 1

Substance	Ozone-depletion potential
chlorofluorocarbon-11 (CFC–11)	1.0
chlorofluorocarbon-12 (CFC–12)	1.0
chlorofluorocarbon-13 (CFC–13)	1.0
chlorofluorocarbon-111 (CFC–111)	1.0
chlorofluorocarbon-112 (CFC–112)	1.0
chlorofluorocarbon-113 (CFC–113)	0.8
chlorofluorocarbon-114 (CFC–114)	1.0
chlorofluorocarbon-115 (CFC–115)	0.6
chlorofluorocarbon-211 (CFC–211)	1.0
chlorofluorocarbon-212 (CFC–212)	1.0
chlorofluorocarbon-213 (CFC–213)	1.0
chlorofluorocarbon-214 (CFC–214)	1.0
chlorofluorocarbon-215 (CFC–215)	1.0
chlorofluorocarbon-216 (CFC–216)	1.0
chlorofluorocarbon-217 (CFC–217)	1.0
halon-1211	3.0
halon-1301	10.0
halon-2402	6.0
carbon tetrachloride	1.1
methyl chloroform	0.1
hydrochlorofluorocarbon-22 (HCFC–22)	0.05
hydrochlorofluorocarbon-123 (HCFC–123)	0.02
hydrochlorofluorocarbon-124 (HCFC–124)	0.02
hydrochlorofluorocarbon-141(b) (HCFC–141(b))	0.1
hydrochlorofluorocarbon-142(b) (HCFC–142(b))	0.06

Where the ozone-depletion potential of a substance is specified in the Montreal Protocol, the ozone-depletion potential specified for that substance under this section shall be consistent with the Montreal Protocol.

(July 14, 1955, ch. 360, title VI, § 602, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2650.)

§ 7671b. Monitoring and reporting requirements

(a) Regulations

Within 270 days after November 15, 1990, the Administrator shall amend the regulations of the Administrator in effect on such date regarding monitoring and reporting of class I and class II substances. Such amendments shall conform to the requirements of this section. The amended regulations shall include requirements with respect to the time and manner of monitoring and reporting as required under this section.

(b) Production, import, and export level reports

On a quarterly basis, or such other basis (not less than annually) as determined by the Administrator, each person who produced, imported, or exported a class I or class II substance shall file a report with the Administrator setting forth the amount of the substance that such person produced, imported, and exported during the preceding reporting period. Each such report shall be signed and attested by a responsible officer. No such report shall be required from a person after April 1 of the calendar year after such person permanently ceases production, importation, and exportation of the substance and so notifies the Administrator in writing.

(c) Baseline reports for class I substances

Unless such information has previously been reported to the Administrator, on the date on which the first report under subsection (b) is required to be filed, each person who produced, imported, or exported a class I substance (other than a substance added to the list of class I substances after the publication of the initial list of such substances under this section) shall file a report with the Administrator setting forth the amount of such substance that such person produced, imported, and exported during the baseline year. In the case of a substance added to the list of class I substances after publication of the initial list of such substances under this section, the regulations shall require that each person who produced, imported, or exported such substance shall file a report with the Administrator within 180 days after the date on which such substance is added to the list, setting forth the amount of the substance that such person produced, imported, and exported in the baseline year.

(d) Monitoring and reports to Congress

(1) The Administrator shall monitor and, not less often than every 3 years following November 15, 1990, submit a report to Congress on the production, use and consumption of class I and class II substances. Such report shall include data on domestic production, use and consumption, and an estimate of worldwide production, use and consumption of such substances. Not less frequently than every 6 years the Administrator shall report to Congress on the environmental and economic effects of any stratospheric ozone depletion.

(2) The Administrators of the National Aeronautics and Space Administration and the National Oceanic and Atmospheric Administration shall monitor, and not less often than every 3 years following November 15, 1990, submit a report to Congress on the current average tropospheric concentration of chlorine and bromine and on the level of stratospheric ozone depletion. Such reports shall include updated projections of—

(A) peak chlorine loading;

(B) the rate at which the atmospheric abundance of chlorine is projected to decrease after the year 2000; and

(C) the date by which the atmospheric abundance of chlorine is projected to return to a level of two parts per billion.

Such updated projections shall be made on the basis of current international and domestic controls on substances covered by this subchapter as well as on the basis of such controls supplemented by a year 2000 global phase out of all halocarbon emissions (the base case). It is the purpose of the Congress through the provisions of this section to monitor closely the production and consumption of class II substances to assure that the production and consumption of such substances will not:

(i) increase significantly the peak chlorine loading that is projected to occur under the base case established for purposes of this section;

(ii) reduce significantly the rate at which the atmospheric abundance of chlorine is projected to decrease under the base case; or

(iii) delay the date by which the average atmospheric concentration of chlorine is pro-

jected under the base case to return to a level of two parts per billion.

(e) Technology status report in 2015

The Administrator shall review, on a periodic basis, the progress being made in the development of alternative systems or products necessary to manufacture and operate appliances without class II substances. If the Administrator finds, after notice and opportunity for public comment, that as a result of technological development problems, the development of such alternative systems or products will not occur within the time necessary to provide for the manufacture of such equipment without such substances prior to the applicable deadlines under section 7671d of this title, the Administrator shall, not later than January 1, 2015, so inform the Congress.

(f) Emergency report

If, in consultation with the Administrators of the National Aeronautics and Space Administration and the National Oceanic and Atmospheric Administration, and after notice and opportunity for public comment, the Administrator determines that the global production, consumption, and use of class II substances are projected to contribute to an atmospheric chlorine loading in excess of the base case projections by more than 5/10ths parts per billion, the Administrator shall so inform the Congress immediately. The determination referred to in the preceding sentence shall be based on the monitoring under subsection (d) and updated not less often than every 3 years.

(July 14, 1955, ch. 360, title VI, § 603, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2653.)

TERMINATION OF REPORTING REQUIREMENTS

For termination, effective May 15, 2000, of provisions in subsec. (d)(1) of this section relating to submittal of triennial report to Congress, see section 3003 of Pub. L. 104–66, as amended, set out as a note under section 1113 of Title 31, Money and Finance, and the 12th item on page 162 of House Document No. 103–7.

METHANE STUDIES

Pub. L. 101–549, title VI, § 603, Nov. 15, 1990, 104 Stat. 2670, provided that:

''(a) ECONOMICALLY JUSTIFIED ACTIONS.—Not later than 2 years after enactment of this Act [Nov. 15, 1990], the Administrator shall prepare and submit a report to the Congress that identifies activities, substances, processes, or combinations thereof that could reduce methane emissions and that are economically and technologically justified with and without consideration of environmental benefit.

''(b) DOMESTIC METHANE SOURCE INVENTORY AND CONTROL.—Not later than 2 years after the enactment of this Act [Nov. 15, 1990], the Administrator, in consultation and coordination with the Secretary of Energy and the Secretary of Agriculture, shall prepare and submit to the Congress reports on each of the following:

''(1) Methane emissions associated with natural gas extraction, transportation, distribution, storage, and use. Such report shall include an inventory of methane emissions associated with such activities within the United States. Such emissions include, but are not limited to, accidental and intentional releases from natural gas and oil wells, pipelines, processing facilities, and gas burners. The report shall also include an inventory of methane generation with such activities.

''(2) Methane emissions associated with coal extraction, transportation, distribution, storage, and use. Such report shall include an inventory of methane emissions associated with such activities within the United States. Such emissions include, but are not limited to, accidental and intentional releases from mining shafts, degasification wells, gas recovery wells and equipment, and from the processing and use of coal. The report shall also include an inventory of methane generation with such activities.

''(3) Methane emissions associated with management of solid waste. Such report shall include an inventory of methane emissions associated with all forms of waste management in the United States, including storage, treatment, and disposal.

''(4) Methane emissions associated with agriculture. Such report shall include an inventory of methane emissions associated with rice and livestock production in the United States.

''(5) Methane emissions associated with biomass burning. Such report shall include an inventory of methane emissions associated with the intentional burning of agricultural wastes, wood, grasslands, and forests.

''(6) Other methane emissions associated with human activities. Such report shall identify and inventory other domestic sources of methane emissions that are deemed by the Administrator and other such agencies to be significant.

''(c) INTERNATIONAL STUDIES.—

''(1) METHANE EMISSIONS.—Not later than 2 years after the enactment of this Act [Nov. 15, 1990], the Administrator shall prepare and submit to the Congress a report on methane emissions from countries other than the United States. Such report shall include inventories of methane emissions associated with the activities listed in subsection (b).

''(2) PREVENTING INCREASES IN METHANE CONCENTRATIONS.—Not later than 2 years after the enactment of this Act [Nov. 15, 1990], the Administrator shall prepare and submit to the Congress a report that analyzes the potential for preventing an increase in atmospheric concentrations of methane from activities and sources in other countries. Such report shall identify and evaluate the technical options for reducing methane emission from each of the activities listed in subsection (b), as well as other activities or sources that are deemed by the Administrator in consultation with other relevant Federal agencies and departments to be significant and shall include an evaluation of costs. The report shall identify the emissions reductions that would need to be achieved to prevent increasing atmospheric concentrations of methane. The report shall also identify technology transfer programs that could promote methane emissions reductions in lesser developed countries.

''(d) NATURAL SOURCES.—Not later than 2 years after the enactment of this Act [Nov. 15, 1990], the Administrator shall prepare and submit to the Congress a report on—

''(1) methane emissions from biogenic sources such as (A) tropical, temperate, and subarctic forests, (B) tundra, and (C) freshwater and saltwater wetlands; and

''(2) the changes in methane emissions from biogenic sources that may occur as a result of potential increases in temperatures and atmospheric concentrations of carbon dioxide.

''(e) STUDY OF MEASURES TO LIMIT GROWTH IN METHANE CONCENTRATIONS.—Not later than 2 years after the completion of the studies in subsections (b), (c), and (d), the Administrator shall prepare and submit to the Congress a report that presents options outlining measures that could be implemented to stop or reduce the growth in atmospheric concentrations of methane from sources within the United States referred to in paragraphs (1) through (6) of subsection (b). This study shall identify and evaluate the technical options for reducing methane emissions from each of the activities listed in subsection (b), as well as other activities or

sources deemed by such agencies to be significant, and shall include an evaluation of costs, technology, safety, energy, and other factors. The study shall be based on the other studies under this section. The study shall also identify programs of the United States and international lending agencies that could be used to induce lesser developed countries to undertake measures that will reduce methane emissions and the resource needs of such programs.

''(f) INFORMATION GATHERING.—In carrying out the studies under this section, the provisions and requirements of section 114 of the Clean Air Act [42 U.S.C. 7414] shall be available for purposes of obtaining information to carry out such studies.

''(g) CONSULTATION AND COORDINATION.—In preparing the studies under this section the Administrator shall consult and coordinate with the Secretary of Energy, the Administrators of the National Aeronautics and Space Administration and the National Oceanic and Atmospheric Administration, and the heads of other relevant Federal agencies and departments. In the case of the studies under subsections (a), (b), and (e), such consultation and coordination shall include the Secretary of Agriculture.''

§ 7671c. Phase-out of production and consumption of class I substances

(a) Production phase-out

Effective on January 1 of each year specified in Table 2, it shall be unlawful for any person to produce any class I substance in an annual quantity greater than the relevant percentage specified in Table 2. The percentages in Table 2 refer to a maximum allowable production as a percentage of the quantity of the substance produced by the person concerned in the baseline year.

TABLE 2

Date	Carbon tetrachloride	Methyl chloroform	Other class I substances
1991 ...	100%	100%	85%
1992 ...	90%	100%	80%
1993 ...	80%	90%	75%
1994 ...	70%	85%	65%
1995 ...	15%	70%	50%
1996 ...	15%	50%	40%
1997 ...	15%	50%	15%
1998 ...	15%	50%	15%
1999 ...	15%	50%	15%
2000 ...	.....	20%	
2001 ...	.....	20%	

(b) Termination of production of class I substances

Effective January 1, 2000 (January 1, 2002 in the case of methyl chloroform), it shall be unlawful for any person to produce any amount of a class I substance.

(c) Regulations regarding production and consumption of class I substances

The Administrator shall promulgate regulations within 10 months after November 15, 1990, phasing out the production of class I substances in accordance with this section and other applicable provisions of this subchapter. The Administrator shall also promulgate regulations to insure that the consumption of class I substances in the United States is phased out and terminated in accordance with the same schedule (subject to the same exceptions and other provisions) as is applicable to the phase-out and termination of production of class I substances under this subchapter.

(d) Exceptions for essential uses of methyl chloroform, medical devices, and aviation safety

(1) Essential uses of methyl chloroform

Notwithstanding the termination of production required by subsection (b), during the period beginning on January 1, 2002, and ending on January 1, 2005, the Administrator, after notice and opportunity for public comment, may, to the extent such action is consistent with the Montreal Protocol, authorize the production of limited quantities of methyl chloroform solely for use in essential applications (such as nondestructive testing for metal fatigue and corrosion of existing airplane engines and airplane parts susceptible to metal fatigue) for which no safe and effective substitute is available. Notwithstanding this paragraph, the authority to produce methyl chloroform for use in medical devices shall be provided in accordance with paragraph (2).

(2) Medical devices

Notwithstanding the termination of production required by subsection (b), the Administrator, after notice and opportunity for public comment, shall, to the extent such action is consistent with the Montreal Protocol, authorize the production of limited quantities of class I substances solely for use in medical devices if such authorization is determined by the Commissioner, in consultation with the Administrator, to be necessary for use in medical devices.

(3) Aviation safety

(A) Notwithstanding the termination of production required by subsection (b), the Administrator, after notice and opportunity for public comment, may, to the extent such action is consistent with the Montreal Protocol, authorize the production of limited quantities of halon-1211 (bromochlorodifluoromethane), halon-1301 (bromotrifluoromethane), and halon-2402 (dibromotetrafluoroethane) solely for purposes of aviation safety if the Administrator of the Federal Aviation Administration, in consultation with the Administrator, determines that no safe and effective substitute has been developed and that such authorization is necessary for aviation safety purposes.

(B) The Administrator of the Federal Aviation Administration shall, in consultation with the Administrator, examine whether safe and effective substitutes for methyl chloroform or alternative techniques will be available for nondestructive testing for metal fatigue and corrosion of existing airplane engines and airplane parts susceptible to metal fatigue and whether an exception for such uses of methyl chloroform under this paragraph will be necessary for purposes of airline safety after January 1, 2005 and provide a report to Congress in 1998.

(4) Cap on certain exceptions

Under no circumstances may the authority set forth in paragraphs (1), (2), and (3) of subsection (d) be applied to authorize any person

to produce a class I substance in annual quantities greater than 10 percent of that produced by such person during the baseline year.

(5) Sanitation and food protection

To the extent consistent with the Montreal Protocol's quarantine and preshipment provisions, the Administrator shall exempt the production, importation, and consumption of methyl bromide to fumigate commodities entering or leaving the United States or any State (or political subdivision thereof) for purposes of compliance with Animal and Plant Health Inspection Service requirements or with any international, Federal, State, or local sanitation or food protection standard.

(6) Critical uses

To the extent consistent with the Montreal Protocol, the Administrator, after notice and the opportunity for public comment, and after consultation with other departments or instrumentalities of the Federal Government having regulatory authority related to methyl bromide, including the Secretary of Agriculture, may exempt the production, importation, and consumption of methyl bromide for critical uses.

(e) Developing countries

(1) Exception

Notwithstanding the phase-out and termination of production required under subsections (a) and (b), the Administrator, after notice and opportunity for public comment, may, consistent with the Montreal Protocol, authorize the production of limited quantities of a class I substance in excess of the amounts otherwise allowable under subsection (a) or (b), or both, solely for export to, and use in, developing countries that are Parties to the Montreal Protocol and are operating under article 5 of such Protocol. Any production authorized under this paragraph shall be solely for purposes of satisfying the basic domestic needs of such countries.

(2) Cap on exception

(A) Under no circumstances may the authority set forth in paragraph (1) be applied to authorize any person to produce a class I substance in any year for which a production percentage is specified in Table 2 of subsection (a) in an annual quantity greater than the specified percentage, plus an amount equal to 10 percent of the amount produced by such person in the baseline year.

(B) Under no circumstances may the authority set forth in paragraph (1) be applied to authorize any person to produce a class I substance in the applicable termination year referred to in subsection (b), or in any year thereafter, in an annual quantity greater than 15 percent of the baseline quantity of such substance produced by such person.

(C) An exception authorized under this subsection shall terminate no later than January 1, 2010 (2012 in the case of methyl chloroform).

(3) Methyl bromide

Notwithstanding the phaseout and termination of production of methyl bromide pursuant to subsection (h), the Administrator may, consistent with the Montreal Protocol, authorize the production of limited quantities of methyl bromide, solely for use in developing countries that are Parties to the Copenhagen Amendments to the Montreal Protocol.

(f) National security

The President may, to the extent such action is consistent with the Montreal Protocol, issue such orders regarding production and use of CFC–114 (chlorofluorocarbon-114), halon-1211, halon-1301, and halon-2402, at any specified site or facility or on any vessel as may be necessary to protect the national security interests of the United States if the President finds that adequate substitutes are not available and that the production and use of such substance are necessary to protect such national security interest. Such orders may include, where necessary to protect such interests, an exemption from any prohibition or requirement contained in this subchapter. The President shall notify the Congress within 30 days of the issuance of an order under this paragraph providing for any such exemption. Such notification shall include a statement of the reasons for the granting of the exemption. An exemption under this paragraph shall be for a specified period which may not exceed one year. Additional exemptions may be granted, each upon the President's issuance of a new order under this paragraph. Each such additional exemption shall be for a specified period which may not exceed one year. No exemption shall be granted under this paragraph due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.

(g) Fire suppression and explosion prevention

(1) Notwithstanding the production phase-out set forth in subsection (a), the Administrator, after notice and opportunity for public comment, may, to the extent such action is consistent with the Montreal Protocol, authorize the production of limited quantities of halon-1211, halon-1301, and halon-2402 in excess of the amount otherwise permitted pursuant to the schedule under subsection (a) solely for purposes of fire suppression or explosion prevention if the Administrator, in consultation with the Administrator of the United States Fire Administration, determines that no safe and effective substitute has been developed and that such authorization is necessary for fire suppression or explosion prevention purposes. The Administrator shall not authorize production under this paragraph for purposes of fire safety or explosion prevention training or testing of fire suppression or explosion prevention equipment. In no event shall the Administrator grant an exception under this paragraph that permits production after December 31, 1999.

(2) The Administrator shall periodically monitor and assess the status of efforts to obtain substitutes for the substances referred to in paragraph (1) for purposes of fire suppression or explosion prevention and the probability of such substitutes being available by December 31, 1999. The Administrator, as part of such assessment,

shall consider any relevant assessments under the Montreal Protocol and the actions of the Parties pursuant to Article 2B of the Montreal Protocol in identifying essential uses and in permitting a level of production or consumption that is necessary to satisfy such uses for which no adequate alternatives are available after December 31, 1999. The Administrator shall report to Congress the results of such assessment in 1994 and again in 1998.

(3) Notwithstanding the termination of production set forth in subsection (b), the Administrator, after notice and opportunity for public comment, may, to the extent consistent with the Montreal Protocol, authorize the production of limited quantities of halon-1211, halon-1301, and halon-2402 in the period after December 31, 1999, and before December 31, 2004, solely for purposes of fire suppression or explosion prevention in association with domestic production of crude oil and natural gas energy supplies on the North Slope of Alaska, if the Administrator, in consultation with the Administrator of the United States Fire Administration, determines that no safe and effective substitute has been developed and that such authorization is necessary for fire suppression and explosion prevention purposes. The Administrator shall not authorize production under the paragraph for purposes of fire safety or explosion prevention training or testing of fire suppression or explosion prevention equipment. In no event shall the Administrator authorize under this paragraph any person to produce any such halon in an amount greater than 3 percent of that produced by such person during the baseline year.

(h) Methyl bromide

Notwithstanding subsections (b) and (d), the Administrator shall not terminate production of methyl bromide prior to January 1, 2005. The Administrator shall promulgate rules for reductions in, and terminate the production, importation, and consumption of, methyl bromide under a schedule that is in accordance with, but not more stringent than, the phaseout schedule of the Montreal Protocol Treaty as in effect on October 21, 1998.

(July 14, 1955, ch. 360, title VI, § 604, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2655; amended Pub. L. 105–277, div. A, § 101(a) [title VII, § 764], Oct. 21, 1998, 112 Stat. 2681, 2681–36.)

AMENDMENTS

1998—Subsec. (d)(5), (6). Pub. L. 105–277, § 101(a) [title VII, § 764(b)], added pars. (5) and (6).

Subsec. (e)(3). Pub. L. 105–277, § 101(a) [title VII, § 764(c)], added par. (3).

Subsec. (h). Pub. L. 105–277, § 101(a) [title VII, § 764(a)], added subsec. (h).

§ 7671d. Phase-out of production and consumption of class II substances

(a) Restriction of use of class II substances

Effective January 1, 2015, it shall be unlawful for any person to introduce into interstate commerce or use any class II substance unless such substance—

(1) has been used, recovered, and recycled;

(2) is used and entirely consumed (except for trace quantities) in the production of other chemicals;

(3) is used as a refrigerant in appliances manufactured prior to January 1, 2020; or

(4) is listed as acceptable for use as a fire suppression agent for nonresidential applications in accordance with section 7671k(c) of this title.

As used in this subsection, the term ''refrigerant'' means any class II substance used for heat transfer in a refrigerating system.

(b) Production phase-out

(1) Effective January 1, 2015, it shall be unlawful for any person to produce any class II substance in an annual quantity greater than the quantity of such substance produced by such person during the baseline year.

(2) Effective January 1, 2030, it shall be unlawful for any person to produce any class II substance.

(c) Regulations regarding production and consumption of class II substances

By December 31, 1999, the Administrator shall promulgate regulations phasing out the production, and restricting the use, of class II substances in accordance with this section, subject to any acceleration of the phase-out of production under section 7671e of this title. The Administrator shall also promulgate regulations to insure that the consumption of class II substances in the United States is phased out and terminated in accordance with the same schedule (subject to the same exceptions and other provisions) as is applicable to the phase-out and termination of production of class II substances under this subchapter.

(d) Exceptions

(1) Medical devices

(A) In general

Notwithstanding the termination of production required under subsection (b)(2) and the restriction on use referred to in subsection (a), the Administrator, after notice and opportunity for public comment, shall, to the extent such action is consistent with the Montreal Protocol, authorize the production and use of limited quantities of class II substances solely for purposes of use in medical devices if such authorization is determined by the Commissioner, in consultation with the Administrator, to be necessary for use in medical devices.

(B) Cap on exception

Under no circumstances may the authority set forth in subparagraph (A) be applied to authorize any person to produce a class II substance in annual quantities greater than 10 percent of that produced by such person during the baseline year.

(2) Developing countries

(A) In general

Notwithstanding the provisions of subsection (a) or (b), the Administrator, after notice and opportunity for public comment, may authorize the production of limited quantities of a class II substance in excess of the quantities otherwise permitted under such provisions solely for export to and use

in developing countries that are Parties to the Montreal Protocol, as determined by the Administrator. Any production authorized under this subsection shall be solely for purposes of satisfying the basic domestic needs of such countries.

(B) Cap on exception

(i) Under no circumstances may the authority set forth in subparagraph (A) be applied to authorize any person to produce a class II substance in any year following the effective date of subsection (b)(1) and before the year 2030 in annual quantities greater than 110 percent of the quantity of such substance produced by such person during the baseline year.

(ii) Under no circumstances may the authority set forth in subparagraph (A) be applied to authorize any person to produce a class II substance in the year 2030, or any year thereafter, in an annual quantity greater than 15 percent of the quantity of such substance produced by such person during the baseline year.

(iii) Each exception authorized under this paragraph shall terminate no later than January 1, 2040.

(July 14, 1955, ch. 360, title VI, § 605, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2658; amended Pub. L. 112–81, div. A, title III, § 320, Dec. 31, 2011, 125 Stat. 1361.)

AMENDMENTS

2011—Subsec. (a)(4). Pub. L. 112–81 added par. (4).

§ 7671e. Accelerated schedule

(a) In general

The Administrator shall promulgate regulations, after notice and opportunity for public comment, which establish a schedule for phasing out the production and consumption of class I and class II substances (or use of class II substances) that is more stringent than set forth in section 7671c or 7671d of this title, or both, if—

(1) based on an assessment of credible current scientific information (including any assessment under the Montreal Protocol) regarding harmful effects on the stratospheric ozone layer associated with a class I or class II substance, the Administrator determines that such more stringent schedule may be necessary to protect human health and the environment against such effects,

(2) based on the availability of substitutes for listed substances, the Administrator determines that such more stringent schedule is practicable, taking into account technological achievability, safety, and other relevant factors, or

(3) the Montreal Protocol is modified to include a schedule to control or reduce production, consumption, or use of any substance more rapidly than the applicable schedule under this subchapter.

In making any determination under paragraphs (1) and (2), the Administrator shall consider the status of the period remaining under the applicable schedule under this subchapter.

(b) Petition

Any person may petition the Administrator to promulgate regulations under this section. The Administrator shall grant or deny the petition within 180 days after receipt of any such petition. If the Administrator denies the petition, the Administrator shall publish an explanation of why the petition was denied. If the Administrator grants such petition, such final regulations shall be promulgated within 1 year. Any petition under this subsection shall include a showing by the petitioner that there are data adequate to support the petition. If the Administrator determines that information is not sufficient to make a determination under this subsection, the Administrator shall use any authority available to the Administrator, under any law administered by the Administrator, to acquire such information.

(July 14, 1955, ch. 360, title VI, § 606, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2660.)

§ 7671f. Exchange authority

(a) Transfers

The Administrator shall, within 10 months after November 15, 1990, promulgate rules under this subchapter providing for the issuance of allowances for the production of class I and II substances in accordance with the requirements of this subchapter and governing the transfer of such allowances. Such rules shall insure that the transactions under the authority of this section will result in greater total reductions in the production in each year of class I and class II substances than would occur in that year in the absence of such transactions.

(b) Interpollutant transfers

(1) The rules under this section shall permit a production allowance for a substance for any year to be transferred for a production allowance for another substance for the same year on an ozone depletion weighted basis.

(2) Allowances for substances in each group of class I substances (as listed pursuant to section 7671a of this title) may only be transferred for allowances for other substances in the same Group.

(3) The Administrator shall, as appropriate, establish groups of class II substances for trading purposes and assign class II substances to such groups. In the case of class II substances, allowances may only be transferred for allowances for other class II substances that are in the same Group.

(c) Trades with other persons

The rules under this section shall permit 2 or more persons to transfer production allowances (including interpollutant transfers which meet the requirements of subsections (a) and (b)) if the transferor of such allowances will be subject, under such rules, to an enforceable and quantifiable reduction in annual production which—

(1) exceeds the reduction otherwise applicable to the transferor under this subchapter,

(2) exceeds the production allowances transferred to the transferee, and

(3) would not have occurred in the absence of such transaction.

(d) Consumption

The rules under this section shall also provide for the issuance of consumption allowances in accordance with the requirements of this subchapter and for the trading of such allowances in the same manner as is applicable under this section to the trading of production allowances under this section.

(July 14, 1955, ch. 360, title VI, § 607, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2660.)

§ 7671g. National recycling and emission reduction program

(a) In general

(1) The Administrator shall, by not later than January 1, 1992, promulgate regulations establishing standards and requirements regarding the use and disposal of class I substances during the service, repair, or disposal of appliances and industrial process refrigeration. Such standards and requirements shall become effective not later than July 1, 1992.

(2) The Administrator shall, within 4 years after November 15, 1990, promulgate regulations establishing standards and requirements regarding use and disposal of class I and II substances not covered by paragraph (1), including the use and disposal of class II substances during service, repair, or disposal of appliances and industrial process refrigeration. Such standards and requirements shall become effective not later than 12 months after promulgation of the regulations.

(3) The regulations under this subsection shall include requirements that—

(A) reduce the use and emission of such substances to the lowest achievable level, and

(B) maximize the recapture and recycling of such substances.

Such regulations may include requirements to use alternative substances (including substances which are not class I or class II substances) or to minimize use of class I or class II substances, or to promote the use of safe alternatives pursuant to section 7671k of this title or any combination of the foregoing.

(b) Safe disposal

The regulations under subsection (a) shall establish standards and requirements for the safe disposal of class I and II substances. Such regulations shall include each of the following—

(1) Requirements that class I or class II substances contained in bulk in appliances, machines or other goods shall be removed from each such appliance, machine or other good prior to the disposal of such items or their delivery for recycling.

(2) Requirements that any appliance, machine or other good containing a class I or class II substance in bulk shall not be manufactured, sold, or distributed in interstate commerce or offered for sale or distribution in interstate commerce unless it is equipped with a servicing aperture or an equally effective design feature which will facilitate the recapture of such substance during service and repair or disposal of such item.

(3) Requirements that any product in which a class I or class II substance is incorporated so as to constitute an inherent element of such product shall be disposed of in a manner that reduces, to the maximum extent practicable, the release of such substance into the environment. If the Administrator determines that the application of this paragraph to any product would result in producing only insignificant environmental benefits, the Administrator shall include in such regulations an exception for such product.

(c) Prohibitions

(1) Effective July 1, 1992, it shall be unlawful for any person, in the course of maintaining, servicing, repairing, or disposing of an appliance or industrial process refrigeration, to knowingly vent or otherwise knowingly release or dispose of any class I or class II substance used as a refrigerant in such appliance (or industrial process refrigeration) in a manner which permits such substance to enter the environment. De minimis releases associated with good faith attempts to recapture and recycle or safely dispose of any such substance shall not be subject to the prohibition set forth in the preceding sentence.

(2) Effective 5 years after November 15, 1990, paragraph (1) shall also apply to the venting, release, or disposal of any substitute substance for a class I or class II substance by any person maintaining, servicing, repairing, or disposing of an appliance or industrial process refrigeration which contains and uses as a refrigerant any such substance, unless the Administrator determines that venting, releasing, or disposing of such substance does not pose a threat to the environment. For purposes of this paragraph, the term ''appliance'' includes any device which contains and uses as a refrigerant a substitute substance and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer.

(July 14, 1955, ch. 360, title VI, § 608, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2661.)

§ 7671h. Servicing of motor vehicle air conditioners

(a) Regulations

Within 1 year after November 15, 1990, the Administrator shall promulgate regulations in accordance with this section establishing standards and requirements regarding the servicing of motor vehicle air conditioners.

(b) Definitions

As used in this section—

(1) The term ''refrigerant'' means any class I or class II substance used in a motor vehicle air conditioner. Effective 5 years after November 15, 1990, the term ''refrigerant'' shall also include any substitute substance.

(2)(A) The term ''approved refrigerant recycling equipment'' means equipment certified by the Administrator (or an independent standards testing organization approved by the Administrator) to meet the standards established by the Administrator and applicable

to equipment for the extraction and reclamation of refrigerant from motor vehicle air conditioners. Such standards shall, at a minimum, be at least as stringent as the standards of the Society of Automotive Engineers in effect as of November 15, 1990, and applicable to such equipment (SAE standard J–1990).

(B) Equipment purchased before the proposal of regulations under this section shall be considered certified if it is substantially identical to equipment certified as provided in subparagraph (A).

(3) The term ''properly using'' means, with respect to approved refrigerant recycling equipment, using such equipment in conformity with standards established by the Administrator and applicable to the use of such equipment. Such standards shall, at a minimum, be at least as stringent as the standards of the Society of Automotive Engineers in effect as of November 15, 1990, and applicable to the use of such equipment (SAE standard J–1989).

(4) The term ''properly trained and certified'' means training and certification in the proper use of approved refrigerant recycling equipment for motor vehicle air conditioners in conformity with standards established by the Administrator and applicable to the performance of service on motor vehicle air conditioners. Such standards shall, at a minimum, be at least as stringent as specified, as of November 15, 1990, in SAE standard J–1989 under the certification program of the National Institute for Automotive Service Excellence (ASE) or under a similar program such as the training and certification program of the Mobile Air Conditioning Society (MACS).

(c) Servicing motor vehicle air conditioners

Effective January 1, 1992, no person repairing or servicing motor vehicles for consideration may perform any service on a motor vehicle air conditioner involving the refrigerant for such air conditioner without properly using approved refrigerant recycling equipment and no such person may perform such service unless such person has been properly trained and certified. The requirements of the previous sentence shall not apply until January 1, 1993 in the case of a person repairing or servicing motor vehicles for consideration at an entity which performed service on fewer than 100 motor vehicle air conditioners during calendar year 1990 and if such person so certifies, pursuant to subsection (d)(2), to the Administrator by January 1, 1992.

(d) Certification

(1) Effective 2 years after November 15, 1990, each person performing service on motor vehicle air conditioners for consideration shall certify to the Administrator either—

(A) that such person has acquired, and is properly using, approved refrigerant recycling equipment in service on motor vehicle air conditioners involving refrigerant and that each individual authorized by such person to perform such service is properly trained and certified; or

(B) that such person is performing such service at an entity which serviced fewer than 100 motor vehicle air conditioners in 1991.

(2) Effective January 1, 1993, each person who certified under paragraph (1)(B) shall submit a certification under paragraph (1)(A).

(3) Each certification under this subsection shall contain the name and address of the person certifying under this subsection and the serial number of each unit of approved recycling equipment acquired by such person and shall be signed and attested by the owner or another responsible officer. Certifications under paragraph (1)(A) may be made by submitting the required information to the Administrator on a standard form provided by the manufacturer of certified refrigerant recycling equipment.

(e) Small containers of class I or class II substances

Effective 2 years after November 15, 1990, it shall be unlawful for any person to sell or distribute, or offer for sale or distribution, in interstate commerce to any person (other than a person performing service for consideration on motor vehicle air-conditioning systems in compliance with this section) any class I or class II substance that is suitable for use as a refrigerant in a motor vehicle air-conditioning system and that is in a container which contains less than 20 pounds of such refrigerant.

(July 14, 1955, ch. 360, title VI, § 609, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2662.)

§ 7671i. Nonessential products containing chlorofluorocarbons

(a) Regulations

The Administrator shall promulgate regulations to carry out the requirements of this section within 1 year after November 15, 1990.

(b) Nonessential products

The regulations under this section shall identify nonessential products that release class I substances into the environment (including any release occurring during manufacture, use, storage, or disposal) and prohibit any person from selling or distributing any such product, or offering any such product for sale or distribution, in interstate commerce. At a minimum, such prohibition shall apply to—

(1) chlorofluorocarbon-propelled plastic party streamers and noise horns,

(2) chlorofluorocarbon-containing cleaning fluids for noncommercial electronic and photographic equipment, and

(3) other consumer products that are determined by the Administrator—

(A) to release class I substances into the environment (including any release occurring during manufacture, use, storage, or disposal), and

(B) to be nonessential.

In determining whether a product is nonessential, the Administrator shall consider the purpose or intended use of the product, the technological availability of substitutes for such product and for such class I substance, safety, health, and other relevant factors.

(c) Effective date

Effective 24 months after November 15, 1990, it shall be unlawful for any person to sell or dis-

tribute, or offer for sale or distribution, in interstate commerce any nonessential product to which regulations under subsection (a) implementing subsection (b) are applicable.

(d) Other products

(1) Effective January 1, 1994, it shall be unlawful for any person to sell or distribute, or offer for sale or distribution, in interstate commerce—

(A) any aerosol product or other pressurized dispenser which contains a class II substance; or

(B) any plastic foam product which contains, or is manufactured with, a class II substance.

(2) The Administrator is authorized to grant exceptions from the prohibition under subparagraph (A) of paragraph (1) where—

(A) the use of the aerosol product or pressurized dispenser is determined by the Administrator to be essential as a result of flammability or worker safety concerns, and

(B) the only available alternative to use of a class II substance is use of a class I substance which legally could be substituted for such class II substance.

(3) Subparagraph (B) of paragraph (1) shall not apply to—

(A) a foam insulation product, or

(B) an integral skin, rigid, or semi-rigid foam utilized to provide for motor vehicle safety in accordance with Federal Motor Vehicle Safety Standards where no adequate substitute substance (other than a class I or class II substance) is practicable for effectively meeting such Standards.

(e) Medical devices

Nothing in this section shall apply to any medical device as defined in section 7671(8) of this title.

(July 14, 1955, ch. 360, title VI, § 610, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2664.)

§ 7671j. Labeling

(a) Regulations

The Administrator shall promulgate regulations to implement the labeling requirements of this section within 18 months after November 15, 1990, after notice and opportunity for public comment.

(b) Containers containing class I or class II substances and products containing class I substances

Effective 30 months after November 15, 1990, no container in which a class I or class II substance is stored or transported, and no product containing a class I substance, shall be introduced into interstate commerce unless it bears a clearly legible and conspicuous label stating:

''Warning: Contains [insert name of substance], a substance which harms public health and environment by destroying ozone in the upper atmosphere''.

(c) Products containing class II substances

(1) After 30 months after November 15, 1990, and before January 1, 2015, no product containing a class II substance shall be introduced into interstate commerce unless it bears the label referred to in subsection (b) if the Administrator determines, after notice and opportunity for public comment, that there are substitute products or manufacturing processes (A) that do not rely on the use of such class II substance, (B) that reduce the overall risk to human health and the environment, and (C) that are currently or potentially available.

(2) Effective January 1, 2015, the requirements of subsection (b) shall apply to all products containing a class II substance.

(d) Products manufactured with class I and class II substances

(1) In the case of a class II substance, after 30 months after November 15, 1990, and before January 1, 2015, if the Administrator, after notice and opportunity for public comment, makes the determination referred to in subsection (c) with respect to a product manufactured with a process that uses such class II substance, no such product shall be introduced into interstate commerce unless it bears a clearly legible and conspicuous label stating:

''Warning: Manufactured with [insert name of substance], a substance which harms public health and environment by destroying ozone in the upper atmosphere'' [1]

(2) In the case of a class I substance, effective 30 months after November 15, 1990, and before January 1, 2015, the labeling requirements of this subsection shall apply to all products manufactured with a process that uses such class I substance unless the Administrator determines that there are no substitute products or manufacturing processes that (A) do not rely on the use of such class I substance, (B) reduce the overall risk to human health and the environment, and (C) are currently or potentially available.

(e) Petitions

(1) Any person may, at any time after 18 months after November 15, 1990, petition the Administrator to apply the requirements of this section to a product containing a class II substance or a product manufactured with a class I or II substance which is not otherwise subject to such requirements. Within 180 days after receiving such petition, the Administrator shall, pursuant to the criteria set forth in subsection (c), either propose to apply the requirements of this section to such product or publish an explanation of the petition denial. If the Administrator proposes to apply such requirements to such product, the Administrator shall, by rule, render a final determination pursuant to such criteria within 1 year after receiving such petition.

(2) Any petition under this paragaph [2] shall include a showing by the petitioner that there are data on the product adequate to support the petition.

(3) If the Administrator determines that information on the product is not sufficient to make the required determination the Administrator

[1] So in original. Probably should be followed by a period.

[2] So in original. Probably should be ''paragraph''.

shall use any authority available to the Administrator under any law administered by the Administrator to acquire such information.

(4) In the case of a product determined by the Administrator, upon petition or on the Administrator's own motion, to be subject to the requirements of this section, the Administrator shall establish an effective date for such requirements. The effective date shall be 1 year after such determination or 30 months after November 15, 1990, whichever is later.

(5) Effective January 1, 2015, the labeling requirements of this subsection[3] shall apply to all products manufactured with a process that uses a class I or class II substance.

(f) Relationship to other law

(1) The labeling requirements of this section shall not constitute, in whole or part, a defense to liability or a cause for reduction in damages in any suit, whether civil or criminal, brought under any law, whether Federal or State, other than a suit for failure to comply with the labeling requirements of this section.

(2) No other approval of such label by the Administrator under any other law administered by the Administrator shall be required with respect to the labeling requirements of this section.

(July 14, 1955, ch. 360, title VI, §611, as added Pub. L. 101–549, title VI, §602(a), Nov. 15, 1990, 104 Stat. 2665.)

§ 7671k. Safe alternatives policy

(a) Policy

To the maximum extent practicable, class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment.

(b) Reviews and reports

The Administrator shall—

(1) in consultation and coordination with interested members of the public and the heads of relevant Federal agencies and departments, recommend Federal research programs and other activities to assist in identifying alternatives to the use of class I and class II substances as refrigerants, solvents, fire retardants, foam blowing agents, and other commercial applications and in achieving a transition to such alternatives, and, where appropriate, seek to maximize the use of Federal research facilities and resources to assist users of class I and class II substances in identifying and developing alternatives to the use of such substances as refrigerants, solvents, fire retardants, foam blowing agents, and other commercial applications;

(2) examine in consultation and coordination with the Secretary of Defense and the heads of other relevant Federal agencies and departments, including the General Services Administration, Federal procurement practices with respect to class I and class II substances and recommend measures to promote the transition by the Federal Government, as expeditiously as possible, to the use of safe substitutes;

(3) specify initiatives, including appropriate intergovernmental, international, and commercial information and technology transfers, to promote the development and use of safe substitutes for class I and class II substances, including alternative chemicals, product substitutes, and alternative manufacturing processes; and

(4) maintain a public clearinghouse of alternative chemicals, product substitutes, and alternative manufacturing processes that are available for products and manufacturing processes which use class I and class II substances.

(c) Alternatives for class I or II substances

Within 2 years after November 15, 1990, the Administrator shall promulgate rules under this section providing that it shall be unlawful to replace any class I or class II substance with any substitute substance which the Administrator determines may present adverse effects to human health or the environment, where the Administrator has identified an alternative to such replacement that—

(1) reduces the overall risk to human health and the environment; and

(2) is currently or potentially available.

The Administrator shall publish a list of (A) the substitutes prohibited under this subsection for specific uses and (B) the safe alternatives identified under this subsection for specific uses.

(d) Right to petition

Any person may petition the Administrator to add a substance to the lists under subsection (c) or to remove a substance from either of such lists. The Administrator shall grant or deny the petition within 90 days after receipt of any such petition. If the Administrator denies the petition, the Administrator shall publish an explanation of why the petition was denied. If the Administrator grants such petition the Administrator shall publish such revised list within 6 months thereafter. Any petition under this subsection shall include a showing by the petitioner that there are data on the substance adequate to support the petition. If the Administrator determines that information on the substance is not sufficient to make a determination under this subsection, the Administrator shall use any authority available to the Administrator, under any law administered by the Administrator, to acquire such information.

(e) Studies and notification

The Administrator shall require any person who produces a chemical substitute for a class I substance to provide the Administrator with such person's unpublished health and safety studies on such substitute and require producers to notify the Administrator not less than 90 days before new or existing chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I substance. This subsection shall be subject to section 7414(c) of this title.

(July 14, 1955, ch. 360, title VI, §612, as added Pub. L. 101–549, title VI, §602(a), Nov. 15, 1990, 104 Stat. 2667.)

[3] So in original. Probably should be ''section''.

§ 7671*l*. Federal procurement

Not later than 18 months after November 15, 1990, the Administrator, in consultation with the Administrator of the General Services Administration and the Secretary of Defense, shall promulgate regulations requiring each department, agency, and instrumentality of the United States to conform its procurement regulations to the policies and requirements of this subchapter and to maximize the substitution of safe alternatives identified under section 7671k of this title for class I and class II substances. Not later than 30 months after November 15, 1990, each department, agency, and instrumentality of the United States shall so conform its procurement regulations and certify to the President that its regulations have been modified in accordance with this section.

(July 14, 1955, ch. 360, title VI, § 613, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2668.)

EXECUTIVE ORDER NO. 12843

Ex. Ord. No. 12843, Apr. 21, 1993, 58 F.R. 21881, which provided for Federal agencies to implement policies and programs to minimize procurement of ozone-depleting substances, was revoked by Ex. Ord. No. 13148, § 901, Apr. 21, 2000, 65 F.R. 24604, formerly set out as a note under section 4321 of this title.

§ 7671m. Relationship to other laws

(a) State laws

Notwithstanding section 7416 of this title, during the 2-year period beginning on November 15, 1990, no State or local government may enforce any requirement concerning the design of any new or recalled appliance for the purpose of protecting the stratospheric ozone layer.

(b) Montreal Protocol

This subchapter as added by the Clean Air Act Amendments of 1990 shall be construed, interpreted, and applied as a supplement to the terms and conditions of the Montreal Protocol, as provided in Article 2, paragraph 11 thereof, and shall not be construed, interpreted, or applied to abrogate the responsibilities or obligations of the United States to implement fully the provisions of the Montreal Protocol. In the case of conflict between any provision of this subchapter and any provision of the Montreal Protocol, the more stringent provision shall govern. Nothing in this subchapter shall be construed, interpreted, or applied to affect the authority or responsibility of the Administrator to implement Article 4 of the Montreal Protocol with other appropriate agencies.

(c) Technology export and overseas investment

Upon November 15, 1990, the President shall—

(1) prohibit the export of technologies used to produce a class I substance;

(2) prohibit direct or indirect investments by any person in facilities designed to produce a class I or class II substance in nations that are not parties to the Montreal Protocol; and

(3) direct that no agency of the government provide bilateral or multilateral subsidies, aids, credits, guarantees, or insurance programs, for the purpose of producing any class I substance.

(July 14, 1955, ch. 360, title VI, § 614, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2668.)

REFERENCES IN TEXT

The Clean Air Act Amendments of 1990, referred to in subsec. (b), probably means Pub. L. 101–549, Nov. 15, 1990, 104 Stat. 2399. For complete classification of this Act to the Code, see Short Title of 1990 Amendment note set out under section 7401 of this title and Tables.

§ 7671n. Authority of Administrator

If, in the Administrator's judgment, any substance, practice, process, or activity may reasonably be anticipated to affect the stratosphere, especially ozone in the stratosphere, and such effect may reasonably be anticipated to endanger public health or welfare, the Administrator shall promptly promulgate regulations respecting the control of such substance, practice, process, or activity, and shall submit notice of the proposal and promulgation of such regulation to the Congress.

(July 14, 1955, ch. 360, title VI, § 615, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2669.)

§ 7671*o*. Transfers among Parties to Montreal Protocol

(a) In general

Consistent with the Montreal Protocol, the United States may engage in transfers with other Parties to the Protocol under the following conditions:

(1) The United States may transfer production allowances to another Party if, at the time of such transfer, the Administrator establishes revised production limits for the United States such that the aggregate national United States production permitted under the revised production limits equals the lesser of (A) the maximum production level permitted for the substance or substances concerned in the transfer year under the Protocol minus the production allowances transferred, (B) the maximum production level permitted for the substance or substances concerned in the transfer year under applicable domestic law minus the production allowances transferred, or (C) the average of the actual national production level of the substance or substances concerned for the 3 years prior to the transfer minus the production allowances transferred.

(2) The United States may acquire production allowances from another Party if, at the time of such transfer, the Administrator finds that the other Party has revised its domestic production limits in the same manner as provided with respect to transfers by the United States in this subsection.

(b) Effect of transfers on production limits

The Administrator is authorized to reduce the production limits established under this chapter as required as a prerequisite to transfers under paragraph (1) of subsection (a) or to increase production limits established under this chapter to reflect production allowances acquired under a transfer under paragraph (2) of subsection (a).

(c) Regulations

The Administrator shall promulgate, within 2 years after November 15, 1990, regulations to implement this section.

(d) "Applicable domestic law" defined

In the case of the United States, the term ''applicable domestic law'' means this chapter.

(July 14, 1955, ch. 360, title VI, § 616, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2669.)

§ 7671p. International cooperation

(a) In general

The President shall undertake to enter into international agreements to foster cooperative research which complements studies and research authorized by this subchapter, and to develop standards and regulations which protect the stratosphere consistent with regulations applicable within the United States. For these purposes the President through the Secretary of State and the Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, shall negotiate multilateral treaties, conventions, resolutions, or other agreements, and formulate, present, or support proposals at the United Nations and other appropriate international forums and shall report to the Congress periodically on efforts to arrive at such agreements.

(b) Assistance to developing countries

The Administrator, in consultation with the Secretary of State, shall support global participation in the Montreal Protocol by providing technical and financial assistance to developing countries that are Parties to the Montreal Protocol and operating under article 5 of the Protocol. There are authorized to be appropriated not more than $30,000,000 to carry out this section in fiscal years 1991, 1992 and 1993 and such sums as may be necessary in fiscal years 1994 and 1995. If China and India become Parties to the Montreal Protocol, there are authorized to be appropriated not more than an additional $30,000,000 to carry out this section in fiscal years 1991, 1992, and 1993.

(July 14, 1955, ch. 360, title VI, § 617, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2669.)

AUTHORITY OF SECRETARY OF STATE

Except as otherwise provided, Secretary of State to have and exercise any authority vested by law in any official or office of Department of State and references to such officials or offices deemed to refer to Secretary of State or Department of State, as appropriate, see section 2651a of Title 22, Foreign Relations and Intercourse, and section 161(d) of Pub. L. 103–236, set out as a note under section 2651a of Title 22.

§ 7671q. Miscellaneous provisions

For purposes of section 7416 of this title, requirements concerning the areas addressed by this subchapter for the protection of the stratosphere against ozone layer depletion shall be treated as requirements for the control and abatement of air pollution. For purposes of section 7418 of this title, the requirements of this subchapter and corresponding State, interstate, and local requirements, administrative authority, and process, and sanctions respecting the protection of the stratospheric ozone layer shall be treated as requirements for the control and abatement of air pollution within the meaning of section 7418 of this title.

(July 14, 1955, ch. 360, title VI, § 618, as added Pub. L. 101–549, title VI, § 602(a), Nov. 15, 1990, 104 Stat. 2670.)

CHAPTER 86—EARTHQUAKE HAZARDS REDUCTION

Sec.

§ 7701. Congressional findings

The Congress finds and declares the following:

(1) All 50 States are vulnerable to the hazards of earthquakes, and at least 39 of them are subject to major or moderate seismic risk, including Alaska, California, Hawaii, Illinois, Massachusetts, Missouri, Montana, Nevada, New Jersey, New York, South Carolina, Utah, and Washington. A large portion of the population of the United States lives in areas vulnerable to earthquake hazards.

(2) Earthquakes have caused, and can cause in the future, enormous loss of life, injury, destruction of property, and economic and social disruption. With respect to future earthquakes, such loss, destruction, and disruption can be substantially reduced through the development and implementation of earthquake hazards reduction measures, including (A) improved design and construction methods and practices, (B) land-use controls and redevelopment, (C) prediction techniques and early-warning systems, (D) coordinated emergency preparedness plans, and (E) public education and involvement programs.

(3) An expertly staffed and adequately financed earthquake hazards reduction program, based on Federal, State, local, and private research, planning, decisionmaking, and contributions would reduce the risk of such loss, destruction, and disruption in seismic areas by an amount far greater than the cost of such program.

(4) A well-funded seismological research program in earthquake prediction could provide data adequate for the design, of an operational system that could predict accurately the time, place, magnitude, and physical effects of earthquakes in selected areas of the United States.

Executive Orders

Executive Order 12549--Debarment and suspension

Source: The provisions of Executive Order 12549 of Feb. 18, 1986, appear at 51 FR 6370, 3 CFR, 1986 Comp., p. 189, unless otherwise noted.

By the authority vested in me as President by the Constitution and laws of the United States of America, and in order to curb fraud, waste, and abuse in Federal programs, increase agency accountability, and ensure consistency among agency regulations concerning debarment and suspension of participants in Federal programs, it is hereby ordered that:

Section 1. (a) To the extent permitted by law and subject to the limitations in Section 1(c), Executive departments and agencies shall participate in a system for debarment and suspension from programs and activities involving Federal financial and nonfinancial assistance and benefits. Debarment or suspension of a participant in a program by one agency shall have government-wide effect.
(b) Activities covered by this Order include but are not limited to: grants, cooperative agreements, contracts of assistance, loans, and loan guarantees.
(c) This Order does not cover procurement programs and activities, direct Federal statutory entitlements or mandatory awards, direct awards to foreign governments or public international organizations, benefits to an individual as a personal entitlement, or Federal employment.

Sec. 2. To the extent permitted by law, Executive departments and agencies shall:
(a) Follow government-wide criteria and government-wide minimum due process procedures when they act to debar or suspend participants in affected programs.
(b) Send to the agency designated pursuant to Section 5 identifying information concerning debarred and suspended participants in affected programs, participants who have agreed to exclusion from participation, and participants declared ineligible under applicable law, including Executive Orders. This information shall be included in the list to be maintained pursuant to Section 5.
(c) Not allow a party to participate in any affected program if any Executive department or agency has debarred, suspended, or otherwise excluded (to the extent specified in the exclusion agreement) that party from participation in an affected program. An agency may grant an exception permitting a debarred, suspended, or excluded party to participate in a

particular transaction upon a written determination by the agency head or authorized designee stating the reason(s) for deviating from this Presidential policy. However, I intend that exceptions to this policy should be granted only infrequently.

Sec. 3. Executive departments and agencies shall issue regulations governing their implementation of this Order that shall be consistent with the guidelines issued under Section 6. Proposed regulations shall be submitted to the Office of Management and Budget for review within four months of the date of the guidelines issued under Section 6. The Director of the Office of Management and Budget may return for reconsideration proposed regulations that the Director believes are inconsistent with the guidelines. Final regulations shall be published within twelve months of the date of the guidelines.

Sec. 4. There is hereby constituted the Interagency Committee on Debarment and Suspension, which shall monitor implementation of this Order. The Committee shall consist of representatives of agencies designated by the Director of the Office of Management and Budget.

Sec. 5. The Director of the Office of Management and Budget shall designate a Federal agency to perform the following functions: maintain a current list of all individuals and organizations excluded from program participation under this Order, periodically distribute the list to Federal agencies, and study the feasibility of automating the list; coordinate with the lead agency responsible for government-wide debarment and suspension of contractors; chair the Interagency Committee established by Section 4; and report periodically to the Director on implementation of this Order, with the first report due within two years of the date of the Order.

Sec. 6. The Director of the Office of Management and Budget is authorized to issue guidelines to Executive departments and agencies that govern which programs and activities are covered by this Order, prescribe government-wide criteria and government-wide minimum due process procedures, and set forth other related details for the effective administration of the guidelines.

Sec. 7. The Director of the Office of Management and Budget shall report to the President within three years of the date of this Order on Federal agency compliance with the Order, including the number of exceptions made under Section 2(c), and shall make recommendations as are appropriate further to curb fraud, waste, and abuse.

Presidential Documents

Executive Order 12689 of August 16, 1989

Debarment and Suspension

By the authority vested in me as President by the Constitution and laws of the United States of America, and in order to protect the interest of the Federal Government, to deal only with responsible persons, and to insure proper management and integrity in Federal activities, it is hereby ordered as follows:

Section 1. *Definitions.* For purposes of this order:

(a) "Procurement activities" refers to all acquisition programs and activities of the Federal Government, as defined in the Federal Acquisition Regulation.

(b) "Nonprocurement activities" refers to all programs and activities involving Federal financial and nonfinancial assistance and benefits, as covered by Executive Order No. 12549 and the Office of Management and Budget guidelines implementing that order.

(c) "Agency" refers to executive departments and agencies.

Sec. 2. *Governmentwide Effect.*

(a) To the extent permitted by law and upon resolution of differences and promulgation of final regulations pursuant to section 3 of this order, the debarment, suspension, or other exclusion of a participant in a procurement activity under the Federal Acquisition Regulation, or in a nonprocurement activity under regulations issued pursuant to Executive Order No. 12549, shall have governmentwide effect. No agency shall allow a party to participate in any procurement or nonprocurement activity if any agency has debarred, suspended, or otherwise excluded (to the extent specified in the exclusion agreement) that party from participation in a procurement or nonprocurement activity.

(b) An agency may grant an exception permitting a debarred, suspended, or otherwise excluded party to participate in procurement activities of that agency to the extent exceptions are authorized under the Federal Acquisition Regulation, or to participate in nonprocurement activities of that agency to the extent exceptions are authorized under regulations issued pursuant to Executive Order No. 12549.

Sec. 3. *Implementation.*

(a) The Office of Management and Budget may assist Federal agencies in resolving differences between the provisions contained in the Federal Acquistion Regulation and in regulations issued pursuant to Executive Order No. 12549. The Office of Management and Budget may determine the date of resolution of differences and then shall notify affected agencies of that date.

(b) To implement this order, proposed regulations amending the Federal Acquisition Regulation and the agency regulations issued pursuant to Executive Order No. 12549 shall be published simultaneously within 6 months of the resolution of differences.

(c) Final regulations shall be published simultaneously within 12 months of the publication of the proposed regulations, to be effective 30 days thereafter.

George Bush

THE WHITE HOUSE
August 16, 1989.

[FR Doc. 89-19069
Filed 8-18-89; 4:28 pm]
Billing code 3195-01-M

HISTORICAL AND REVISION NOTES

Revised Section	*Source (U.S. Code)*	*Source (Statutes at Large)*
1350	31:665(i)(1)(words after semicolon related to (a), (b)).	R.S. §3679(i)(1)(words after semicolon related to (a), (b)); Mar. 3, 1905, ch. 1484, §4(1st par.), 33 Stat. 1257; Feb. 27, 1906, ch. 510, §3, 34 Stat. 48; restated Sept. 6, 1950, ch. 896, §1211, 64 Stat. 768.

The words ''District of Columbia government'' are added because of section 47–105 of the D.C. Code. The words ''upon conviction'' are omitted as surplus.

§ 1351. Reports on violations

If an officer or employee of an executive agency or an officer or employee of the District of Columbia government violates section 1341(a) or 1342 of this title, the head of the agency or the Mayor of the District of Columbia, as the case may be, shall report immediately to the President and Congress all relevant facts and a statement of actions taken. A copy of each report shall also be transmitted to the Comptroller General on the same date the report is transmitted to the President and Congress.

(Pub. L. 97–258, Sept. 13, 1982, 96 Stat. 926; Pub. L. 108–447, div. G, title I, §1401(a), Dec. 8, 2004, 118 Stat. 3192.)

HISTORICAL AND REVISION NOTES

Revised Section	*Source (U.S. Code)*	*Source (Statutes at Large)*
1351	31:665(i)(2)(related to (a), (b)).	R.S. §3679(i)(2)(related to (a), (b)); Mar. 3, 1905, ch. 1404, §4(1st par.), 33 Stat. 1257; Feb. 27, 1906, ch. 510, §3, 34 Stat. 48; restated Sept. 6, 1950, ch. 896, §1211, 64 Stat. 768.

The words ''executive agency'' are substituted for ''agency'' because the definition of ''agency'' in 31:665(d)(2) applies to the source provisions restated in the section and because of section 102 of the revised title. The word ''Mayor'' is used because of Reorganization Plan No. 3 of 1967 (eff. Aug. 11, 1967, 81 Stat. 948) and sections 421, 422, and 771 of the District of Columbia Self-Government and Governmental Reorganization Act (Pub. L. 93–198, 87 Stat. 789, 818). The word ''President'' is substituted for ''President, through the Director of the Office of Management and Budget'' because sections 101 and 102(a) of Reorganization Plan No. 2 of 1970 (eff. July 1, 1970, 84 Stat. 2085) designated the Bureau of the Budget as the Office of Management and Budget and transferred all functions of the Bureau to the President.

AMENDMENTS

2004—Pub. L. 108–447 inserted at end ''A copy of each report shall also be transmitted to the Comptroller General on the same date the report is transmitted to the President and Congress.''

§ 1352. Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions

(a)(1) None of the funds appropriated by any Act may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal action described in paragraph (2) of this subsection.

(2) The prohibition in paragraph (1) of this subsection applies with respect to the following Federal actions:

(A) The awarding of any Federal contract.

(B) The making of any Federal grant.

(C) The making of any Federal loan.

(D) The entering into of any cooperative agreement.

(E) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b)(1) Each person who requests or receives a Federal contract, grant, loan, or cooperative agreement from an agency or requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency, in accordance with paragraph (4) of this subsection—

(A) a written declaration described in paragraph (2) or (3) of this subsection, as the case may be; and

(B) copies of all declarations received by such person under paragraph (5).

(2) A declaration filed by a person pursuant to paragraph (1)(A) of this subsection in connection with a Federal contract, grant, loan, or cooperative agreement shall contain—

(A) the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on behalf of the person with respect to that Federal contract, grant, loan, or cooperative agreement; and

(B) a certification that the person making the declaration has not made, and will not make, any payment prohibited by subsection (a).

(3) A declaration filed by a person pursuant to paragraph (1)(A) of this subsection in connection with a commitment providing for the United States to insure or guarantee a loan shall contain the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on behalf of the person in connection with that loan insurance or guarantee.

(4) A person referred to in paragraph (1)(A) of this subsection shall file a declaration referred to in that paragraph—

(A) with each submission by such person that initiates agency consideration of such person for award of a Federal contract, grant, loan, or cooperative agreement, or for grant of a commitment providing for the United States to insure or guarantee a loan;

(B) upon receipt by such person of a Federal contract, grant, loan, or cooperative agreement or of a commitment providing for the United States to insure or guarantee a loan, unless such person previously filed a declaration with respect to such contract, grant, loan, cooperative agreement or commitment pursuant to clause (A); and

(C) at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any declaration previously filed by such person in connection with such Federal

contract, grant, loan, cooperative agreement, loan insurance commitment, or loan guaranty commitment.

(5) Any person who requests or receives from a person referred to in paragraph (1) of this subsection a subcontract under a Federal contract, a subgrant or contract under a Federal grant, a contract or subcontract to carry out any purpose for which a particular Federal loan is made, or a contract under a Federal cooperative agreement shall be required to file with the person referred to in such paragraph a written declaration referred to in clause (A) of such paragraph.

(6) The Director of the Office of Management and Budget, after consulting with the Secretary of the Senate and the Clerk of the House of Representatives, shall issue guidance for agency implementation of, and compliance with, the requirements of this section.

(c)(1) Any person who makes an expenditure prohibited by subsection (a) of this section shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure.

(2)(A) Any person who fails to file or amend a declaration required to be filed or amended under subsection (b) of this section shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

(B) A filing of a declaration of a declaration amendment on or after the date on which an administrative action for the imposition of a civil penalty under this subsection is commenced does not prevent the imposition of such civil penalty for a failure occurring before that date. For the purposes of this subparagraph, an administrative action is commenced with respect to a failure when an investigating official determines in writing to commence an investigation of an allegation of such failure.

(3) Sections 3803 (except for subsection (c)), 3804, 3805, 3806, 3807, 3808, and 3812 of this title shall be applied, consistent with the requirements of this section, to the imposition and collection of civil penalties under this subsection.

(4) An imposition of a civil penalty under this subsection does not prevent the United States from seeking any other remedy that the United States may have for the same conduct that is the basis for the imposition of such civil penalty.

(d)(1)(A) Subsection (a)(1) of this section does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a Federal contract, grant, loan, or cooperative agreement to the extent that the payment is for agency and legislative liaison activities not directly related to a Federal action referred to in subsection (a)(2) of this section.

(B) Subsection (a)(1) of this section does not prohibit any reasonable payment to a person in connection with, or any payment of reasonable compensation to an officer or employee of a person requesting or receiving, a Federal contract, grant, loan, or cooperative agreement or an extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal contract, grant, loan, or cooperative agreement or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal contract, grant, loan, or cooperative agreement.

(C) Nothing in this paragraph shall be construed as permitting the use of appropriated funds for making any payment prohibited in or pursuant to any other provision of law.

(2) The reporting requirement in subsection (b) of this section shall not apply to any person with respect to—

(A) payments of reasonable compensation made to regularly employed officers or employees of a person requesting or receiving a Federal contract, grant, loan, or cooperative agreement or a commitment providing for the United States to insure or guarantee a loan;

(B) a request for or receipt of a contract (other than a contract referred to in clause (C)), grant, cooperative agreement, subcontract (other than a subcontract referred to in clause (C)), or subgrant that does not exceed $100,000; and

(C) a request for or receipt of a loan, or a commitment providing for the United States to insure or guarantee a loan, that does not exceed $150,000, or the single family maximum mortgage limit for affected programs, whichever is greater, including a contract or subcontract to carry out any purpose for which such a loan is made.

(e) The Secretary of Defense may exempt a Federal action described in subsection (a)(2) from the prohibition in subsection (a)(1) whenever the Secretary determines, in writing, that such an exemption is in the national interest. The Secretary shall transmit a copy of each such written exemption to Congress immediately after making such determination.

(f) The head of each Federal agency shall take such actions as are necessary to ensure that the provisions of this section are vigorously implemented and enforced in such agency.

(g) As used in this section:

(1) The term ''recipient'', with respect to funds received in connection with a Federal contract, grant, loan, or cooperative agreement—

(A) includes the contractors, subcontractors, or subgrantees (as the case may be) of the recipient; but

(B) does not include an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency but only with respect to expenditures that are by such tribe or organization for purposes specified in subsection (a) and are permitted by other Federal law.

(2) The term ''agency'' has the same meaning provided for such term in section 552(f) of title 5, and includes a Government corporation, as defined in section 9101(1) of this title.

(3) The term ''person''—

(A) includes an individual, corporation, company, association, authority, firm, partnership, society, State, and local govern-

ment, regardless of whether such entity is operated for profit or not for profit; but

(B) does not include an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency but only with respect to expenditures by such tribe or organization that are made for purposes specified in subsection (a) and are permitted by other Federal law.

(4) The term ''State'' means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and a multi-State, regional, or interstate entity having governmental duties and powers.

(5) The term ''local government'' means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, the following entities:

(A) A local public authority.

(B) A special district.

(C) An intrastate district.

(D) A council of governments.

(E) A sponsor group representative organization.

(F) Any other instrumentality of a local government.

(6)(A) The terms ''Federal contract'', ''Federal grant'', ''Federal cooperative agreement'' mean, respectively—

(i) a contract awarded by an agency;

(ii) a grant made by an agency or a direct appropriation made by law to any person; and

(iii) a cooperative agreement entered into by an agency.

(B) Such terms do not include—

(i) direct United States cash assistance to an individual;

(ii) a loan;

(iii) loan insurance; or

(iv) a loan guaranty.

(7) The term ''Federal loan'' means a loan made by an agency. Such term does not include loan insurance or a loan guaranty.

(8) The term ''reasonable payment'' means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

(9) The term ''reasonable compensation'' means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

(10) The term ''regularly employed'', with respect to an officer or employee of a person requesting or receiving a Federal contract, grant, loan, or cooperative agreement or a commitment providing for the United States to insure or guarantee a loan, means an officer or employee who is employed by such person for at least 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract, grant, loan, cooperative agreement, loan insurance commitment, or loan guaranty commitment.

(11) The terms ''Indian tribe'' and ''tribal organization'' have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(Added Pub. L. 101–121, title III, §319(a)(1), Oct. 23, 1989, 103 Stat. 750; amended Pub. L. 101–512, title III, §320, Nov. 5, 1990, 104 Stat. 1977; Pub. L. 103–272, §4(f)(1)(F), July 5, 1994, 108 Stat. 1362; Pub. L. 104–65, §10, Dec. 19, 1995, 109 Stat. 700; Pub. L. 104–66, title III, §3001(b), Dec. 21, 1995, 109 Stat. 734; Pub. L. 104–106, div. A, title X, §1064(c), div. D, title XLIII, §4301(a)(2), Feb. 10, 1996, 110 Stat. 445, 656.)

REFERENCES IN TEXT

The Lobbying Disclosure Act of 1995, referred to in subsec. (b)(2)(A), (3), is Pub. L. 104–65, Dec. 19, 1995, 109 Stat. 691, which is classified principally to chapter 26 (§1601 et seq.) of Title 2, The Congress. For complete classification of this Act to the Code, see Short Title note set out under section 1601 of Title 2 and Tables.

CODIFICATION

Another section 1352 was renumbered section 1353 of this title.

AMENDMENTS

1996—Subsec. (b)(2). Pub. L. 104–106, §4301(a)(2), which directed amendment of par. (2) by inserting ''and'' after the semicolon at the end of subpar. (A) and by striking out subpar. (C), was not executed because subsec. (b)(2) did not contain a subpar. (C) subsequent to amendment by Pub. L. 104–65, §10(a)(1). See 1995 Amendment note below.

Subsec. (b)(6)(A). Pub. L. 104–106, §1064(c)(1), which directed insertion of ''(other than the Secretary of Defense and Secretary of a military department)'' after ''The head of each agency'', could not be executed because subsec. (b)(6) did not contain a subpar. (A) subsequent to amendment by Pub. L. 104–65, §10(a)(3). See 1995 Amendment note below.

Subsec. (d)(1). Pub. L. 104–106, §1064(c)(2), which directed the insertion of ''(other than in the case of the Department of Defense or a military department)'' after ''paragraph (3) of this subsection'', could not be executed because subsec. (d)(1) did not contain phrase ''paragraph (3) of this subsection'' subsequent to amendment by Pub. L. 104–65, §10(b). See 1995 Amendment note below.

1995—Subsec. (b)(2). Pub. L. 104–65, §10(a)(1), added subpars. (A) and (B) and struck out former subpars. (A) to (C) which read as follows:

''(A) a statement setting forth whether such person—

''(i) has made any payment with respect to that Federal contract, grant, loan, or cooperative agreement, using funds other than appropriated funds, which would be prohibited by subsection (a) of this section if the payment were paid for with appropriated funds; or

''(ii) has agreed to make any such payment;

''(B) with respect to each such payment (if any) and each such agreement (if any)—

''(i) the name and address of each person paid, to be paid, or reasonably expected to be paid;

''(ii) the name and address of each individual performing the services for which such payment is made, to be made, or reasonably expected to be made;

''(iii) the amount paid, to be paid, or reasonably expected to be paid;

''(iv) how the person was paid, is to be paid, or is reasonably expected to be paid; and

''(v) the activity for which the person was paid, is to be paid, or is reasonably expected to be paid; and

''(C) a certification that the person making the declaration has not made, and will not make, any payment prohibited by subsection (a).''

Subsec. (b)(3). Pub. L. 104–65, §10(a)(2), substituted ''shall contain the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on behalf of the person in connection with that loan insurance or guarantee.'' for ''shall contain—'' and struck out subpars. (A) and (B) which read as follows:

''(A) a statement setting forth whether such person—

''(i) has made any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guaranty; or

''(ii) has agreed to make any such payment; and

''(B) with respect to each such payment (if any) and each such agreement (if any), the information described in paragraph (2)(B) of this subsection.''

Subsec. (b)(6), (7). Pub. L. 104–65, §10(a)(3), redesignated par. (7) as (6), and struck out former par. (6) which directed head of each agency to collect and compile detailed information on any unappropriated payments under Federal contracts, and report such information to the appropriate congressional officer or committee.

Subsecs. (d) to (h). Pub. L. 104–65, §10(b), and Pub. L. 104–66, §3001(b), amended section identically, redesignating subsecs. (e) to (h) as (d) to (g), respectively, and striking out former subsec. (d) which directed the Inspector General or official of each agency to submit annual reports to Congress on the compliance of each agency with the requirements imposed by this section.

1994—Subsec. (c). Pub. L. 103–272, §4(f)(1)(F)(i), substituted ''(c)(1) Any person'' for ''(C)(1) Any person''.

Subsec. (e)(1)(C). Pub. L. 103–272, §4(f)(1)(F)(ii), substituted ''appropriated'' for ''appropirated'' and inserted period at end.

Subsec. (h)(7). Pub. L. 103–272, §4(f)(1)(F)(iii), inserted periods after ''agency'' and ''guaranty''.

1990—Subsec. (e)(2)(C). Pub. L. 101–512 inserted ''or the single family maximum mortgage limit for affected programs, whichever is greater,'' after ''$150,000,''.

EFFECTIVE DATE OF 1996 AMENDMENT

For effective date and applicability of amendment by Pub. L. 104–106, see section 4401 of Pub. L. 104–106, set out as a note under section 2302 of Title 10, Armed Forces.

EFFECTIVE DATE OF 1995 AMENDMENT

Amendment by Pub. L. 104–65 effective Jan. 1, 1996, except as otherwise provided, see section 24 of Pub. L. 104–65, set out as an Effective Date note under section 1601 of Title 2, The Congress.

EFFECTIVE DATE

Section 319(d) of Pub. L. 101–121 provided that: ''Section 1352 of title 31, United States Code (as added by subsection (a)), shall take effect with respect to Federal contracts, grants, loans, cooperative agreements, loan insurance commitments, and loan guaranty commitments that are entered into or made more than 60 days after the date of the enactment of this Act [Oct. 23, 1989].''

FIRST REPORT ON MAY 31, 1990; CONTENT

Section 319(b) of Pub. L. 101–121 provided that the first report submitted under former subsec. (b)(6) of this section was to be submitted on May 31, 1990, and was to contain a compilation relating to the statements received under subsec. (b) of this section during the six-month period beginning on Oct. 1, 1989.

NOTIFICATION OF COMPLIANCE DATE; GUIDANCE FOR AGENCY IMPLEMENTATION

Section 319(c) of Pub. L. 101–121 provided that: ''The Director of the Office of Management and Budget shall notify the head of each agency that section 1352 of title 31, United States Code (as added by subsection (a)), is to be complied with commencing 60 days after the date of the enactment of this Act [Oct. 23, 1989]. Not later than 60 days after the date of the enactment of this Act, the Director of the Office of Management and Budget shall issue the guidance required by subsection (b)(7) [now (b)(6)] of such section.''

§ 1353. Acceptance of travel and related expenses from non-Federal sources

(a) Notwithstanding any other provision of law, the Administrator of General Services, in consultation with the Director of the Office of Government Ethics, shall prescribe by regulation the conditions under which an agency in the executive branch (including an independent agency) may accept payment, or authorize an employee of such agency to accept payment on the agency's behalf, from non-Federal sources for travel, subsistence, and related expenses with respect to attendance of the employee (or the spouse of such employee) at any meeting or similar function relating to the official duties of the employee. Any cash payment so accepted shall be credited to the appropriation applicable to such expenses. In the case of a payment in kind so accepted, a pro rata reduction shall be made in any entitlement of the employee to payment from the Government for such expenses.

(b) Except as provided in this section or section 4111 or 7342 of title 5, an agency or employee may not accept payment for expenses referred to in subsection (a). An employee who accepts any payment in violation of the preceding sentence—

(1) may be required, in addition to any penalty provided by law, to repay, for deposit in the general fund of the Treasury, an amount equal to the amount of the payment so accepted; and

(2) in the case of a repayment under paragraph (1), shall not be entitled to any payment from the Government for such expenses.

(c) As used in this section—

(1) the term ''executive branch'' means all executive agencies (as such term is defined in section 105 of title 5); and

(2) the term ''employee in the executive branch'' means—

(A) an appointed officer or employee in the executive branch; and

(B) an expert or consultant in the executive branch, under section 3109 of title 5; and

(3) the term ''payment'' means a payment or reimbursement, in cash or in kind.

(d)(1) The head of each agency of the executive branch shall, in the manner provided in paragraph (2), submit to the Director of the Office of Government Ethics reports of payments of more than $250 accepted under this section with respect to employees of the agency. The Director shall make such reports available for public inspection and copying.

(2) The reports required by paragraph (1) shall, with respect to each payment—

(A) specify the amount and method of payment, the name of the person making the payment, the name of the employee, the nature of

(3) Rent Supplement payments under section 101 of the Housing and Urban Development Act of 1965 (12 U.S.C. 1701s); or

(4) Project-based housing assistance payment contracts under section 8 of the United States Housing Act of 1937 (42 U.S.C. 1437f) administered by HUD's Office of Housing.

§ 200.216 Controlling Participants.

(a) *Definition.* Controlling Participants are those entities and individuals (i) serving as a Specified Capacity with respect to a Covered Project and (ii) the entities and individuals in control of the Specified Capacities. Each of the following capacities for a Covered Project is a ''Specified Capacity:''

(1) An owner of a Covered Project;

(2) A borrower of a loan financing a Covered Project;

(3) A management agent;

(4) An operator (in connection with healthcare projects insured under the following section of the National Housing Act: Section 232 (12 U.S.C. 1715w) and section 242 (12 U.S.C. 1715z–7));

(5) A master tenant (in connection with any multifamily housing project insured under the National Housing Act (12 U.S.C. 1701 *et seq.*) and in connection with certain healthcare projects insured under sections 232 or section 242 of the National Housing Act);

(6) A general contractor; and

(7) In connection with a hospital project insured under section 242 of the National Housing Act (12 U.S.C. 1715z–7), a construction manager;

(b) *Control of entities.* To the extent any Specified Capacity listed in paragraph (a) of this section is an entity, any individual(s) or entities determined by HUD to control the financial or operational decisions of such Specified Capacity shall also be considered Controlling Participants. Without limiting the foregoing and unless otherwise determined by HUD, the following individuals or entities shall be considered Controlling Participants:

(1) Individuals or entities with the ability to direct the day-to-day operations of a Specified Capacity or a Covered Project;

(2) Individuals or entities that own at least 25 percent of an entity that is a Specified Capacity;

(3) Individuals or entities with the ability to direct the entity to enter into agreements relating to the Triggering Event that necessitates review of Previous Participation, including without limitation individuals or entities that own at least 25 percent of entities determined to control an entity that is a Specified Capacity; and

(4) In connection with a hospital project insured under section 242 of the National Housing Act (12 U.S.C. 1715z–7), members of a hospital Board of Directors (or similar body) and executive management (such as the Chief Executive Officer and Chief Financial Officer) that HUD determines to have control over the finances or operation of a Covered Project.

(c) *Exclusions from definition.* The following individuals or entities are not Controlling Participants for purposes of this subpart:

(1) Passive investors and investor entities with limited liability in Covered Projects benefiting from tax credits, including but not limited to low-income housing tax credits pursuant to section 42 of title 26 of the United States Code, whether such investors are syndicators, direct investors or investors in such syndicators and/or investors;

(2) Individuals or entities that do not exercise financial or operational control over the Covered Project, a Specified Capacity or another Controlling Participant;

(3) Unless determined by HUD to exercise day-to-day control over the operations or finances of a Specified Capacity or Covered Project, board members of a non-profit corporation who are not officers or otherwise part of the executive management teams of the nonprofit;

(4) Mortgagees acting in their capacity as such; and

(5) Public housing agencies (PHAs).

§ 200.218 Triggering Events.

(a) Each of the following is a Triggering Event that may subject a Controlling Participant to Previous Participation review under § 200.220:

(1) An application for FHA mortgage insurance;

(2) An application for funds provided by HUD pursuant to a program administered by HUD's Office of Housing, such as but not limited to supplemental loans;

(3) A request to change any Controlling Participant for which HUD consent is required with respect to a Covered Project; or

(4) A request for consent to an assignment of a housing assistance payment contract under section 8 of the United States Housing Act of 1937 or of another contract pursuant to which a Controlling Participant will receive funds in connection with a Covered Project.

(b) The Commissioner may also require a review of a potential owner's Previous Participation in connection with a loan sale or other form of property disposition, including foreclosure sale. Notwithstanding anything contained in the regulations in this subpart to the contrary, any such review shall be in accordance with the terms, conditions, provisions and other requirements set forth by the Commissioner in connection with such loan sale or property disposition which may differ, in whole or in part, from the regulations in this subpart.

§ 200.220 Previous Participation review.

(a) *Scope of review.* (1) Upon the occurrence of a Triggering Event, as provided in § 200.218, the Commissioner shall review the Previous Participation of the relevant Controlling Participants in considering whether to approve the participation of the Controlling Participants in connection with the Triggering Event in accordance with the definition of Risk in § 200.212.

(2) The Commissioner will not review Previous Participation for interests acquired by inheritance or by court decree.

(3) In connection with the submittal of an application for any Triggering Event, applicants shall identify the Controlling Participants and, to the extent requested by HUD, make available to HUD the Controlling Participant's Previous Participation in Covered Projects.

(b) *Results of review.* (1) Based upon the review under paragraph (a) of this section, the Commissioner will approve, disapprove, limit, or otherwise condition the continued participation of the Controlling Participant in the Triggering Event, in accordance with paragraphs (c) and (d) of this section.

(2) The Commissioner shall provide notice of the determination to the Controlling Participant including the reasons for disapproval or limitation. The Commissioner may provide notice of the determination to other parties as well, such the FHA-approved lender in the transaction.

(c) *Basis for disapproval.* (1) The Commissioner must disapprove a Controlling Participant if the Commissioner determines that the Controlling Participant is suspended, debarred or subject to other restriction pursuant to 2 CFR part 180 or 2 CFR part 2424;

(2) The Commissioner may disapprove a Controlling Participant if the Commissioner determines:

(i) The Controlling Participant is materially restricted, including voluntarily, from doing business with HUD (other than the restrictions listed in paragraph (c)(1) of this section) or any other governmental department or agency if the Commissioner determines that such restriction demonstrates a significant risk to proceeding with the Triggering Event; or

(ii) The Controlling Participant's record of Previous Participation reveals significant risk to proceeding with the Triggering Event.

(d) *Alternatives to disapproval.* In lieu of disapproval, the Commissioner may:

(1) Condition or limit the Controlling Participant's participation;

(2) Temporarily withhold issuing a determination in order to gather more necessary information; or

(3) Require the Controlling Participant to remedy or mitigate outstanding violations of HUD requirements to the Commissioner's satisfaction in order to participate in the Triggering Event.

§ 200.222 Request for reconsideration.

(a) Where participation in a Triggering Event has been disapproved, otherwise limited or conditioned because of Previous Participation review,

Title 2 —Grants and Agreements

Subtitle A —Office of Management and Budget Guidance for Grants and Agreements

Chapter II —Office of Management and Budget Guidance

Part 200 —Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards

Subpart D —Post Federal Award Requirements

Procurement Standards

Source: 85 FR 49543, Aug. 13, 2020, unless otherwise noted.
Authority: 31 U.S.C. 503
Source: 78 FR 78608, Dec. 26, 2013, unless otherwise noted.

§ 200.323 Procurement of recovered materials.

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

§ 200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;

(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and

(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (b)(1) through (5) of this section.

§ 200.322 Domestic preferences for procurements.

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

(1) ''Produced in the United States'' means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) ''Manufactured products'' means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

(c) Federal agencies providing Federal financial assistance for infrastructure projects must implement the Buy America preferences set forth in 2 CFR part 184.

[85 FR 49543, Aug. 13, 2020, as amended at 88 FR 57790, Aug. 23, 2023]

§ 200.323 Procurement of recovered materials.

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

§ 200.324 Contract cost and price.

(a) The non-Federal entity must perform a cost or price analysis in connection with every procurement action in excess of the Simplified Acquisition Threshold including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, the non-Federal entity must make independent estimates before receiving bids or proposals.

(1) Placing unreasonable requirements on firms in order for them to qualify to do business;

(2) Requiring unnecessary experience and excessive bonding;

(3) Noncompetitive pricing practices between firms or between affiliated companies;

(4) Noncompetitive contracts to consultants that are on retainer contracts;

(5) Organizational conflicts of interest;

(6) Specifying only a ''brand name'' product instead of allowing ''an equal'' product to be offered and describing the performance or other relevant requirements of the procurement; and

(7) Any arbitrary action in the procurement process.

(c) The non-Federal entity must conduct procurements in a manner that prohibits the use of statutorily or administratively imposed state, local, or tribal geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. Nothing in this section preempts state licensing laws. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

(d) The non-Federal entity must have written procedures for procurement transactions. These procedures must ensure that all solicitations:

(1) Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description must not, in competitive procurements, contain features which unduly restrict competition. The description may include a statement of the qualitative nature of the material, product or service to be procured and, when necessary, must set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a ''brand name or equivalent'' description may be used as a means to define the performance or other salient requirements of procurement. The specific features of the named brand which must be met by offers must be clearly stated; and

(2) Identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals.

(e) The non-Federal entity must ensure that all prequalified lists of persons, firms, or products which are used in acquiring goods and services are current and include enough qualified sources to ensure maximum open and free competition. Also, the non-Federal entity must not preclude potential bidders from qualifying during the solicitation period.

(f) Noncompetitive procurements can only be awarded in accordance with § 200.320(c).

§ 200.320 Methods of procurement to be followed.

The non-Federal entity must have and use documented procurement procedures, consistent with the standards of this section and §§ 200.317, 200.318, and 200.319 for any of the following methods of procurement used for the acquisition of property or services required under a Federal award or subaward.

(a) *Informal procurement methods.* When the value of the procurement for property or services under a Federal award does not exceed the *simplified acquisition threshold (SAT)*, as defined in § 200.1, or a lower threshold established by a non-Federal entity, formal procurement methods are not required. The non-Federal entity may use informal procurement methods to expedite the completion of its transactions and minimize the associated administrative burden and cost. The informal methods used for procurement of property or services at or below the SAT include:

(1) *Micro-purchases*—(i) *Distribution.* The acquisition of supplies or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (See the definition of *micro-purchase* in § 200.1). To the maximum

extent practicable, the non-Federal entity should distribute micro-purchases equitably among qualified suppliers.

(ii) *Micro-purchase awards.* Micro-purchases may be awarded without soliciting competitive price or rate quotations if the non-Federal entity considers the price to be reasonable based on research, experience, purchase history or other information and documents it files accordingly. Purchase cards can be used for micro-purchases if procedures are documented and approved by the non-Federal entity.

(iii) *Micro-purchase thresholds.* The non-Federal entity is responsible for determining and documenting an appropriate micro-purchase threshold based on internal controls, an evaluation of risk, and its documented procurement procedures. The micro-purchase threshold used by the non-Federal entity must be authorized or not prohibited under State, local, or tribal laws or regulations. Non-Federal entities may establish a threshold higher than the Federal threshold established in the Federal Acquisition Regulations (FAR) in accordance with paragraphs (a)(1)(iv) and (v) of this section.

(iv) *Non-Federal entity increase to the micro-purchase threshold up to $50,000.* Non-Federal entities may establish a threshold higher than the micro-purchase threshold identified in the FAR in accordance with the requirements of this section. The non-Federal entity may self-certify a threshold up to $50,000 on an annual basis and must maintain documentation to be made available to the Federal awarding agency and auditors in accordance with § 200.334. The self-certification must include a justification, clear identification of the threshold, and supporting documentation of any of the following:

(A) A qualification as a low-risk auditee, in accordance with the criteria in § 200.520 for the most recent audit;

(B) An annual internal institutional risk assessment to identify, mitigate, and manage financial risks; or,

(C) For public institutions, a higher threshold consistent with State law.

(v) *Non-Federal entity increase to the micro-purchase threshold over $50,000.* Micro-purchase thresholds higher than $50,000 must be approved by the cognizant agency for indirect costs. The non-federal entity must submit a request with the requirements included in paragraph (a)(1)(iv) of this section. The increased threshold is valid until there is a change in status in which the justification was approved.

(2) *Small purchases*—(i) *Small purchase procedures.* The acquisition of property or services, the aggregate dollar amount of which is higher than the micro-purchase threshold but does not exceed the simplified acquisition threshold. If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources as determined appropriate by the non-Federal entity.

(ii) *Simplified acquisition thresholds.* The non-Federal entity is responsible for determining an appropriate simplified acquisition threshold based on internal controls, an evaluation of risk and its documented procurement procedures which must not exceed the threshold established in the FAR. When applicable, a lower simplified acquisition threshold used by the non-Federal entity must be authorized or not prohibited under State, local, or tribal laws or regulations.

(b) *Formal procurement methods.* When the value of the procurement for property or services under a Federal financial assistance award exceeds the SAT, or a lower threshold established by a non-Federal entity, formal procurement methods are required. Formal procurement methods require following documented procedures. Formal procurement methods also require public advertising unless a non-competitive procurement can be used in accordance with § 200.319 or paragraph (c) of this section. The following formal methods of procurement are used for procurement of property or services above the simplified acquisition threshold or a value below the simplified acquisition threshold the non-Federal entity determines to be appropriate:

(1) *Sealed bids.* A procurement method in which bids are publicly solicited and a firm fixed-price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bids method is the

preferred method for procuring construction, if the conditions.

(i) In order for sealed bidding to be feasible, the following conditions should be present:

(A) A complete, adequate, and realistic specification or purchase description is available;

(B) Two or more responsible bidders are willing and able to compete effectively for the business; and

(C) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(ii) If sealed bids are used, the following requirements apply:

(A) Bids must be solicited from an adequate number of qualified sources, providing them sufficient response time prior to the date set for opening the bids, for local, and tribal governments, the invitation for bids must be publicly advertised;

(B) The invitation for bids, which will include any specifications and pertinent attachments, must define the items or services in order for the bidder to properly respond;

(C) All bids will be opened at the time and place prescribed in the invitation for bids, and for local and tribal governments, the bids must be opened publicly;

(D) A firm fixed price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs must be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and

(E) Any or all bids may be rejected if there is a sound documented reason.

(2) *Proposals.* A procurement method in which either a fixed price or cost-reimbursement type contract is awarded. Proposals are generally used when conditions are not appropriate for the use of sealed bids. They are awarded in accordance with the following requirements:

(i) Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Proposals must be solicited from an adequate number of qualified offerors. Any response to publicized requests for proposals must be considered to the maximum extent practical;

(ii) The non-Federal entity must have a written method for conducting technical evaluations of the proposals received and making selections;

(iii) Contracts must be awarded to the responsible offeror whose proposal is most advantageous to the non-Federal entity, with price and other factors considered; and

(iv) The non-Federal entity may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby offeror's qualifications are evaluated and the most qualified offeror is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms that are a potential source to perform the proposed effort.

(c) *Noncompetitive procurement.* There are specific circumstances in which noncompetitive procurement can be used. Noncompetitive procurement can only be awarded if one or more of the following circumstances apply:

(1) The acquisition of property or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (see paragraph (a)(1) of this section);

(2) The item is available only from a single source;

(3) The public exigency or emergency for the requirement will not permit a delay resulting from publicizing a competitive solicitation;

(4) The Federal awarding agency or pass-through entity expressly authorizes a noncompetitive procurement in response to a written request from the non-Federal entity; or

(5) After solicitation of a number of sources, competition is determined inadequate.

§ 200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;

(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and

(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (b)(1) through (5) of this section.

§ 200.322 Domestic preferences for procurements.

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

(1) ''Produced in the United States'' means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) ''Manufactured products'' means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

(c) Federal agencies providing Federal financial assistance for infrastructure projects must implement the Buy America preferences set forth in 2 CFR part 184.

[85 FR 49543, Aug. 13, 2020, as amended at 88 FR 57790, Aug. 23, 2023]

§ 200.323 Procurement of recovered materials.

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

§ 200.324 Contract cost and price.

(a) The non-Federal entity must perform a cost or price analysis in connection with every procurement action in excess of the Simplified Acquisition Threshold including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, the non-Federal entity must make independent estimates before receiving bids or proposals.

Q:\COMP\WATER2\CLEANWAT.001

FEDERAL WATER POLLUTION CONTROL ACT

[As Amended Through P.L. 107–303, November 27, 2002]

Q:\COMP\WATER2\CLEANWAT.001

FEDERAL WATER POLLUTION CONTROL ACT

(33 U.S.C. 1251 et seq.)

AN ACT To provide for water pollution control activities in the Public Health Service of the Federal Security Agency and in the Federal Works Agency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—RESEARCH AND RELATED PROGRAMS

DECLARATION OF GOALS AND POLICY

SEC. 101. (a) The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act—

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone and the oceans; and

(7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this Act to be met through the control of both point and nonpoint sources of pollution.

(b) It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act. It is the policy of Congress that the States manage the construction grant program under this Act and implement the permit programs under sections 402 and 404 of

this Act. It is further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

(c) It is further the policy of Congress that the President, acting through the Secretary of State and such national and international organizations as he determines appropriate, shall take such action as may be necessary to insure that to the fullest extent possible all foreign countries shall take meaningful action for the prevention, reduction, and elimination of pollution in their waters and in international waters and for the achievement of goals regarding the elimination of discharge of pollutants and the improvement of water quality to at least the same extent as the United States does under its laws.

(d) Except as otherwise expressly provided in this Act, the Administrator of the Environmental Protection Agency (hereinafter in this Act called "Administrator") shall administer this Act.

(e) Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes.

(f) It is the national policy that to the maximum extent possible the procedures utilized for implementing this Act shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government.

(g) It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this Act. It is the further policy of Congress that nothing in this Act shall be construed to supersede or abrogate rights to quantities of water which have been established by any State. Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.

(33 U.S.C. 1251)

COMPREHENSIVE PROGRAMS FOR WATER POLLUTION CONTROL

SEC. 102. (a) The Administrator shall, after careful investigation, and in cooperation with other Federal agencies, State water pollution control agencies, interstate agencies, and the municipalities and industries involved, prepare or develop comprehensive programs for preventing, reducing, or eliminating the pollution of the navigable waters and ground waters and improving the sanitary condition of surface and underground waters. In the development of such comprehensive programs due regard shall be given to the improvements which are necessary to conserve such waters for the protection and propagation of fish and aquatic life and wildlife, rec-

reational purposes, and the withdrawal of such waters for public water supply, agricultural, industrial, and other purposes. For the purpose of this section, the Administrator is authorized to make joint investigations with any such agencies of the condition of any waters in any State or States, and of the discharges of any sewage, industrial wastes, or substance which may adversely affect such waters.

(b)(1) In the survey or planning of any reservoir by the Corps of Engineers, Bureau of Reclamation, or other Federal agency, consideration shall be given to inclusion of storage for regulation of streamflow, except that any such storage and water releases shall not be provided as a substitute for adequate treatment or other methods of controlling waste at the source.

(2) The need for and the value of storage for regulation of streamflow (other than for water quality) including but not limited to navigation, salt water intrusion, recreation, esthetics, and fish and wildlife, shall be determined by the Corps of Engineers, Bureau of Reclamation, or other Federal agencies.

(3) The need for, the value of, and the impact of, storage for water quality control shall be determined by the Administrator, and his views on these matters shall be set forth in any report or presentation to Congress proposing authorization or construction of any reservoir including such storage.

(4) The value of such storage shall be taken into account in determining the economic value of the entire project of which it is a part, and costs shall be allocated to the purpose of regulation of streamflow in a manner which will insure that all project purposes, share equitable in the benefits of multiple-purpose construction.

(5) Costs of regulation of streamflow features incorporated in any Federal reservoir or other impoundment under the provisions of this Act shall be determined and the beneficiaries identified and if the benefits are widespread or national in scope, the costs of such features shall be nonreimbursable.

(6) No license granted by the Federal Power Commission for a hydroelectric power project shall include storage for regulation of streamflow for the purpose of water quality control unless the Administrator shall recommend its inclusion and such reservoir storage capacity shall not exceed such proportion of the total storage required for the water quality control plan as the drainage area of such reservoir bears to the drainage area of the river basin or basins involved in such water quality control plan.

(c)(1) The Administrator shall, at the request of the Governor of a State, or a majority of the Governors when more than one State is involved make a grant to pay not to exceed 50 per centum of the administrative expenses of a planning agency for a period not to exceed three years, which period shall begin after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, if such agency provides for adequate representation of appropriate State, interstate, local, or (when appropriate) international interests in the basin or portion thereof involved and is capable of developing an effective, comprehensive water quality control plan for a basin or portion thereof.

(2) Each planning agency receiving a grant under this subsection shall develop a comprehensive pollution control plan for the basin or portion thereof which—

(A) is consistent with any applicable water quality standards, effluent and other limitations, and thermal discharge regulations established pursuant to current law within the basin;

(B) recommends such treatment works as will provide the most effective and economical means of collection, storage, treatment, and elimination of pollutants and recommends means to encourage both municipal and industrial use of such works;

(C) recommends maintenance and improvement of water quality within the basin or portion thereof and recommends methods of adequately financing those facilities as may be necessary to implement the plan; and

(D) as appropriate, is developed in cooperation with, and is consistent with any comprehensive plan prepared by the Water Resources Council, any areawide waste management plans developed pursuant to section 208 of this Act, and any State plan developed pursuant to section 303(e) of this Act.

(3) For the purposes of this subsection the term "basin" includes, but is not limited to, rivers and their tributaries, streams, coastal waters, sounds, estuaries, bays, lakes, and portions thereof, as well as the lands drained thereby.

(d) [Repealed by section 2021(a) of Public Law 104–66 (109 Stat. 726).]

(33 U.S.C. 1252)

INTERSTATE COOPERATION AND UNIFORM LAWS

SEC. 103. (a) The Administrator shall encourage cooperative activities by the States for the prevention, reduction, and elimination of pollution, encourage the enactment of improved and, so far as practicable, uniform State laws relating to the prevention, reduction, and elimination of pollution; and encourage compacts between States for the prevention and control of pollution.

(b) The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts, not in conflict with any law or treaty of the United States, for (1) cooperative effort and mutual assistance for the prevention and control of pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements and compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by the Congress.

(33 U.S.C. 1253)

RESEARCH, INVESTIGATIONS, TRAINING, AND INFORMATION

SEC. 104. (a) The Administrator shall establish national programs for the prevention, reduction, and elimination of pollution and as part of such programs shall—

(1) in cooperation with other Federal, State, and local agencies, conduct and promote the coordination and accelera-

tion of, research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of pollution;

(2) encourage, cooperate with, and render technical services to pollution control agencies and other appropriate public or private agencies, institutions, and organizations, and individuals, including the general public, in the conduct of activities referred to in paragraph (1) of this subsection;

(3) conduct, in cooperation with State water pollution control agencies and other interested agencies, organizations and persons, public investigations concerning the pollution of any navigable waters, and report on the results of such investigations;

(4) establish advisory committees composed of recognized experts in various aspects of pollution and representatives of the public to assist in the examination and evaluation of research progress and proposals and to avoid duplication of research;

(5) in cooperation with the States, and their political subdivisions, and other Federal agencies establish, equip, and maintain a water quality surveillance system for the purpose of monitoring the quality of the navigable waters and ground waters and the contiguous zone and the oceans and the Administrator shall, to the extent practicable, conduct such surveillance by utilizing the resources of the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, the Geological Survey, and the Coast Guard, and shall report on such quality not later than 90 days after the date of convening of each session of Congress; and

(6) initiate and promote the coordination and acceleration of research designed to develop the most effective practicable tools and techniques for measuring the social and economic costs and benefits of activities which are subject to regulations under this Act; and shall transmit a report on the results of such research to the Congress not later than January 1, 1974.

(b) In carrying out the provisions of subsection (a) of this section the Administrator is authorized to—

(1) collect and make available, through publications and other appropriate means, the results of and other information, including appropriate recommendations by him in connection therewith, pertaining to such research and other activities referred to in paragraph (1) of subsection (a);

(2) cooperate with other Federal departments and agencies, State water pollution control agencies, interstate agencies, other public and private agencies, institutions, organizations, industries involved, and individuals, in the preparation and conduct of such research and other activities referred to in paragraph (1) of subsection (a);

(3) make grants to State water pollution control agencies, interstate agencies, other public or nonprofit private agencies, institutions, organizations, and individuals, for purposes stated in paragraph (1) of subsection (a) of this section;

(4) contract with public or private agencies, institutions, organizations, and individuals, without regard to sections 3648

and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5), referred to in paragraph (1) of subsection (a);

(5) establish and maintain research fellowships at public or nonprofit private educational institutions or research organizations;

(6) collect and disseminate, in cooperation with other Federal departments and agencies, and with other public or private agencies, institutions, and organizations having related responsibilities, basic data on chemical, physical, and biological effects of varying water quality and other information pertaining to pollution and the prevention, reduction, and elimination thereof; and

(7) develop effective and practical processes, methods, and prototype devices for the prevention, reduction, and elimination of pollution.

(c) In carrying out the provisions of subsection (a) of this section the Administrator shall conduct research on, and survey the results of other scientific studies on, the harmful effects on the health or welfare of persons caused by pollutants. In order to avoid duplication of effort, the Administrator shall, to the extent practicable, conduct such research in cooperation with and through the facilities of the Secretary of Health, Education, and Welfare.

(d) In carrying out the provisions of this section the Administrator shall develop and demonstrate under varied conditions (including conducting such basic and applied research, studies, and experiments as may be necessary):

(1) Practicable means of treating municipal sewage, and other waterborne wastes to implement the requirements of section 201 of this Act;

(2) Improved methods and procedures to identify and measure the effects of pollutants, including those pollutants created by new technological developments; and

(3) Methods and procedures for evaluating the effects on water quality of augmented streamflows to control pollution not susceptible to other means of prevention, reduction, or elimination.

(e) The Administrator shall establish, equip, and maintain field laboratory and research facilities, including, but not limited to, one to be located in the northeastern area of the United States, one in the Middle Atlantic area, one in the southeastern area, one in the midwestern area, one in the southwestern area, one in the Pacific Northwest, and one in the State of Alaska, for the conduct of research, investigations, experiments, field demonstrations and studies, and training relating to the prevention, reduction and elimination of pollution. Insofar as practicable, each such facility shall be located near institutions of higher learning in which graduate training in such research might be carried out. In conjunction with the development of criteria under section 403 of this Act, the Administrator shall construct the facilities authorized for the National Marine Water Quality Laboratory established under this subsection.

(f) The Administrator shall conduct research and technical development work, and make studies, with respect to the quality of the waters of the Great Lakes, including an analysis of the present

and projected future water quality of the Great Lakes under varying conditions of waste treatment and disposal, an evaluation of the water quality needs of those to be served by such waters, an evaluation of municipal, industrial, and vessel waste treatment and disposal practices with respect to such waters, and a study of alternate means of solving pollution problems (including additional waste treatment measures) with respect to such waters.

(g)(1) For the purpose of providing an adequate supply of trained personnel to operate and maintain existing and future treatment works and related activities, and for the purpose of enhancing substantially the proficiency of those engaged in such activities, the Administrator shall finance pilot programs, in cooperation with State and interstate agencies, municipalities, educational institutions, and other organizations and individuals, of manpower development and training and retraining of persons in, on entering into, the field of operation and maintenance of treatment works and related activities. Such program and any funds expended for such a program shall supplement, not supplant, other manpower and training programs and funds available for the purposes of this paragraph. The Administrator is authorized, under such terms and conditions as he deems appropriate, to enter into agreements with one or more States, acting jointly or severally, or with other public or private agencies or institutions for the development and implementation of such a program.

(2) The Administrator is authorized to enter into agreements with public and private agencies and institutions, and individuals to develop and maintain an effective system for forecasting the supply of, and demand for, various professional and other occupational categories needed for the prevention, reduction, and elimination of pollution in each region, State, or area of the United States and, from time to time, to publish the results of such forecasts.

(3) In furtherance of the purposes of this Act, the Administrator is authorized to—

(A) make grants to public or private agencies and institutions and to individuals for training projects, and provide for the conduct of training by contract with public or private agencies and institutions and with individuals without regard to sections 3648 and 3709 of the Revised Statutes;

(B) establish and maintain research fellowships in the Environmental Protection Agency with such stipends and allowances, including traveling and subsistence expenses, as he may deem necessary to procure the assistance of the most promising research fellows; and

(C) provide, in addition to the program established under paragraph (1) of this subsection, training in technical matters relating to the causes, prevention, reduction, and elimination of pollution for personnel of public agencies and other persons with suitable qualifications.

(4) The Administrator shall submit, through the President, a report to the Congress not later than December 31, 1973, summarizing the actions taken under this subsection and the effectiveness of such actions, and setting forth the number of persons trained, the occupational categories for which training was provided, the effectiveness of other Federal, State, and local training programs in

this field, together with estimates of future needs, recommendations on improving training programs, and such other information and recommendations, including legislative recommendations, as he deems appropriate.

(h) The Administrator is authorized to enter into contracts, with, or make grants to, public or private agencies and organizations and individuals for (A) the purpose of developing and demonstrating new or improved methods for the prevention, removal, reduction, and elimination of pollution in lakes, including the undesirable effects of nutrients and vegetation, and (B) the construction of publicly owned research facilities for such purpose.

(i) The Administrator, in cooperation with the Secretary of the department in which the Coast Guard is operating, shall—

(1) engage in such research, studies, experiments, and demonstrations as he deems appropriate, relative to the removal of oil from any waters and to the prevention, control, and elimination of oil and hazardous substances pollution;

(2) publish from time to time the results of such activities; and

(3) from time to time, develop and publish in the Federal Register specifications and other technical information on the various chemical compounds used in the control of oil and hazardous substances spills.

In carrying out this subsection, the Administrator may enter into contracts with, or make grants to, public or private agencies and organizations and individuals.

(j) The Secretary of the department in which the Coast Guard is operating shall engage in such research, studies, experiments, and demonstrations as he deems appropriate relative to equipment which is to be installed on board a vessel and is designed to receive, retain, treat, or discharge human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes with particular emphasis on equipment to be installed on small recreational vessels. The Secretary of the department in which the Coast Guard is operating shall report to Congress the results of such research, studies, experiments, and demonstrations prior to the effective date of any regulations established under section 312 of this Act. In carrying out this subsection the Secretary of the department in which the Coast Guard is operating may enter into contracts with, or make grants to, public or private organizations and individuals.

(k) In carrying out the provisions of this section relating to the conduct by the Administrator of demonstration projects and the development of field laboratories and reseach facilities, the Administrator may acquire land and interests therein by purchase, with appropriated or donated funds, by donation, or by exchange for acquired or public lands under his jurisdiction which he classifies as suitable for disposition. The values of the properties so exchanged either shall be approximately equal, or if they are not approximately equal, the values shall be equalized by the payment of cash to the grantor or to the Administrator as the circumstances require.

(l)(1) The Administrator shall, after consultation with appropriate local, State, and Federal agencies, public and private organi-

zations, and interested individuals, as soon as practicable but not later than January 1, 1973, develop and issue to the States for the purpose of carrying out this Act the latest scientific knowledge available in indicating the kind and extent of effects on health and welfare which may be expected from the presence of pesticides in the water in varying quantities. He shall revise and add to such information whenever necessary to reflect developing scientific knowledge.

(2) The President shall, in consultation with appropriate local, State, and Federal agencies, public and private organizations, and interested individuals, conduct studies and investigations of methods to control the release of pesticides into the environment which study shall include examination of the persistency of pesticides in the water environment and alternative thereto. The President shall submit reports, from time to time, on such investigations to Congress together with his recommendations for any necessary legislation.

(m)(1) The Administrator shall, in an effort to prevent degradation of the environment from the disposal of waste oil, conduct a study of (A) the generation of used engine, machine, cooling, and similar waste oil, including quantities generated, the nature and quality of such oil, present collecting methods and disposal practices, and alternate uses of such oil; (B) the long-term, chronic biological effects of the disposal of such waste oil; and (C) the potential market for such oils, including the economic and legal factors relating to the sale of products made from such oils, the level of subsidy, if any, needed to encourage the purchase by public and private nonprofit agencies of products from such oil, and the practicability of Federal procurement, on a priority basis, of products made from such oil. In conducting such study, the Administrator shall consult with affected industries and other persons.

(2) The Administrator shall report the preliminary results of such study to Congress within six months after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, and shall submit a final report to Congress within 18 months after such date of enactment.

(n)(1) The Administrator shall, in cooperation with the Secretary of the Army, the Secretary of Agriculture, the Water Resources Council, and with other appropriate Federal, State, interstate, or local public bodies and private organizations, institutions, and individuals, conduct and promote, encourage contributions to, continuing comprehensive studies of the effects of pollution, including sedimentation, in the estuaries and estuarine zones of the United States on fish and wildlife, on sport and commercial fishing, on recreation, on water supply and water power, and on other beneficial purposes. Such studies shall also consider the effect of demographic trends, the exploitation of mineral resources and fossil fuels, land and industrial development, navigation, flood and erosion control, and other uses of estuaries and estuarine zones upon the pollution of the waters therein.

(2) In conducting such studies, the Administrator shall assemble, coordinate, and organize all existing pertinent information on the Nation's estuaries and estuarine zones; carry out a program of investigations and surveys to supplement existing information in

representative estuaries and estuarine zones; and identify the problems and areas where further research and study are required.

(3) For the purpose of this subsection, the term "estuarine zones" means an environmental system consisting of an estuary and those transitional areas which are consistently influenced or affected by water from an estuary such as, but not limited to, salt marshes, coastal and intertidal areas, bays, harbors, lagoons, inshore waters, and channels, and the term "estuary" means all or part of the mouth of a river or stream or other body of water having unimpaired natural connection with open sea and within which the sea water is measurably diluted with fresh water derived from land drainage.

(o)(1) The Administrator shall conduct research and investigations on devices, systems, incentives, pricing policy, and other methods of reducing the total flow of sewage, including, but not limited to, unnecessary water consumption in order to reduce the requirements for, and the costs of, sewage and waste treatment services. Such research and investigations shall be directed to develop devices, systems, policies, and methods capable of achieving the maximum reduction of unnecessary water consumption.

(2) The Administrator shall report the preliminary results of such studies and investigations to the Congress within one year after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, and annually thereafter not later than 90 days after the date of convening of each session of Congress. Such report shall include recommendations for any legislation that may be required to provide for the adoption and use of devices, systems, policies, or other methods of reducing water consumption and reducing the total flow of sewage. Such report shall include an estimate of the benefits to be derived from adoption and use of such devices, systems, policies, or other methods and also shall reflect estimates of any increase in private, public, or other cost that would be occasioned thereby.

(p) In carrying out the provisions of subsection (a) of this section the Administrator shall, in cooperation with the Secretary of Agriculture, other Federal agencies, and the States, carry out a comprehensive study and research program to determine new and improved methods and the better application of existing methods of preventing, reducing, and eliminating pollution from agriculture, including the legal, economic, and other implications of the use of such methods.

(q)(1) The Administrator shall conduct a comprehensive program of research and investigation and pilot project implementation into new and improved methods of preventing, reducing, storing, collecting, treating, or otherwise eliminating pollution from sewage in rural and other areas where collection of sewage in conventional, community-wide sewage collection systems is impractical, uneconomical, or otherwise infeasible, or where soil conditions or other factors preclude the use of septic tank and drainage field systems.

(2) The Administrator shall conduct a comprehensive program of research and investigation and pilot project implementation into new and improved methods for the collection and treatment of sew-

age and other liquid wastes combined with the treatment and disposal of solid wastes.

(3) The Administrator shall establish, either within the Environmental Protection Agency, or through contract with an appropriate public or private non-profit organization, a national clearinghouse which shall (A) receive reports and information resulting from research, demonstrations, and other projects funded under this Act related to paragraph (1) of this subsection and to subsection (e)(2) of section 105; (B) coordinate and disseminate such reports and information for use by Federal and State agencies, municipalities, institutions, and persons in developing new and improved methods pursuant to this subsection; and (C) provide for the collection and dissemination of reports and information relevant to this subsection from other Federal and State agencies, institutions, universities, and persons.

(4) SMALL FLOWS CLEARINGHOUSE.—Notwithstanding section 205(d) of this Act, from amounts that are set aside for a fiscal year under section 205(i) of this Act and are not obligated by the end of the 24-month period of availability for such amounts under section 205(d), the Administrator shall make available $1,000,000 or such unobligated amount, whichever is less, to support a national clearinghouse within the Environmental Protection Agency to collect and disseminate information on small flows of sewage and innovative or alternative wastewater treatment processes and techniques, consistent with paragraph (3). This paragraph shall apply with respect to amounts set aside under section 205(i) for which the 24-month period of availability referred to in the preceding sentence ends on or after September 30, 1986.

(r) The Administrator is authorized to make grants to colleges and universities to conduct basic research into the structure and function of fresh water aquatic ecosystems, and to improve understanding of the ecological characteristics necessary to the maintenance of the chemical, physical, and biological integrity of freshwater aquatic ecosystems.

(s) The Administrator is authorized to make grants to one or more institutions of higher education (regionally located and to be designated as "River Study Centers") for the purpose of conducting and reporting on interdisciplinary studies on the nature of river systems, including hydrology, biology, ecology, economics, the relationship between river uses and land uses, and the effects of development within river basins on river systems and on the value of water resources and water related activities. No such grant in any fiscal year shall exceed $1,000,000.

(t) The Administrator shall, in cooperation with State and Federal agencies and public and private organizations, conduct continuing comprehensive studies of the effects and methods of control of thermal discharges. In evaluating alternative methods of control the studies shall consider (1) such data as are available on the latest available technology, economic feasibility including cost-effectiveness analysis, and (2) the total impact on the environment, considering not only water quality but also air quality, land use, and effective utilization and conservation of fresh water and other natural resources. Such studies shall consider methods of minimizing

adverse effects and maximizing beneficial effects of thermal discharges. The results of these studies shall be reported by the Administrator as soon as practicable, but not later than 270 days after enactment of this subsection, and shall be made available to the public and the States, and considered as they become available by the Administrator in carrying out section 316 of this Act and by the State in proposing thermal water quality standards.

(u) There is authorized to be appropriated (1) not to exceed $100,000,000 per fiscal year for the fiscal year ending June 30, 1973, the fiscal year ending June 30, 1974, and the fiscal year ending June 30, 1975, not to exceed $14,039,000 for the fiscal year ending September 30, 1980, not to exceed $20,697,000 for the fiscal year ending September 30, 1981, not to exceed $22,770,000 for the fiscal year ending September 30, 1982, such sums as may be necessary for fiscal years 1983 through 1985, and not to exceed $22,770,000 per fiscal year for each of the fiscal years 1986 through 1990, for carrying out the provisions of this section, other than subsections (g)(1) and (2), (p), (r), and (t), except that such authorizations are not for any research, development, or demonstration activity pursuant to such provisions; (2) not to exceed $7,500,000 for fiscal years 1973, 1974, and 1975, $2,000,000 for fiscal year 1977, $3,000,000 for fiscal year 1978, $3,000,000 for fiscal year 1979, $3,000,000 for fiscal year 1980, $3,000,000 for fiscal year 1981, $3,000,000 for fiscal year 1982, such sums as may be necessary for fiscal years 1983 through 1985, and $3,000,000 per fiscal year for each of the fiscal years 1986 through 1990, for carrying out the provisions of subsection (g)(1); (3) not to exceed $2,500,000 for fiscal years 1973, 1974, and 1975, $1,000,000 for fiscal year 1977, $1,500,000 for fiscal year 1978, $1,500,000 for fiscal year 1979, $1,500,000 for fiscal year 1980, $1,500,000 for fiscal year 1981, $1,500,000 for fiscal year 1982, such sums as may be necessary for fiscal years 1983 through 1985, and $1,500,000 per fiscal year for each of the fiscal years 1986 through 1990, for carrying out the provisions of subsection (g)(2); (4) not to exceed $10,000,000 for each of the fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, for carrying out the provisions of subsection (p); (5) not to exceed $15,000,000 per fiscal year for the fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, for carrying out the provisions of subsection (r); and (6) not to exceed $10,000,000 per fiscal year for the fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, for carrying out the provisions of subsection (t).

(v) STUDIES CONCERNING PATHOGEN INDICATORS IN COASTAL RECREATION WATERS.—Not later than 18 months after the date of the enactment of this subsection, after consultation and in cooperation with appropriate Federal, State, tribal, and local officials (including local health officials), the Administrator shall initiate, and, not later than 3 years after the date of the enactment of this subsection, shall complete, in cooperation with the heads of other Federal agencies, studies to provide additional information for use in developing—

(1) an assessment of potential human health risks resulting from exposure to pathogens in coastal recreation waters, including nongastrointestinal effects;

(2) appropriate and effective indicators for improving detection in a timely manner in coastal recreation waters of the presence of pathogens that are harmful to human health;

(3) appropriate, accurate, expeditious, and cost-effective methods (including predictive models) for detecting in a timely manner in coastal recreation waters the presence of pathogens that are harmful to human health; and

(4) guidance for State application of the criteria for pathogens and pathogen indicators to be published under section 304(a)(9) to account for the diversity of geographic and aquatic conditions.

(33 U.S.C. 1254)

GRANTS FOR RESEARCH AND DEVELOPMENT

SEC. 105. (a) The Administrator is authorized to conduct in the Environmental Protection Agency, and to make grants to any State, municipality, or intermunicipal or interstate agency for the purpose of assisting in the development of—

(1) any project which will demonstrate a new or improved method of preventing, reducing, and eliminating the discharge into any waters of pollutants from sewers which carry storm water or both storm water and pollutants; or

(2) any project which will demonstrate advanced waste treatment and water purification methods (including the temporary use of new or improved chemical additives which provide substantial immediate improvement to existing treatment processes), or new or improved methods of joint treatment systems for municipal and industrial wastes;

and to include in such grants such amounts as are necessary for the purpose of reports, plans, and specifications in connection therewith.

(b) The Administrator is authorized to make grants to any State or States or interstate agency to demonstrate, in river basins or portions thereof, advanced treatment and environmental enhancement techniques to control pollution from all sources, within such basins or portions thereof, including nonpoint sources, together with in stream water quality improvement techniques.

(c) In order to carry out the purposes of section 301 of this Act, the Administrator is authorized to (1) conduct in the Environmental Protection Agency, (2) make grants to persons, and (3) enter into contracts with persons, for research and demonstration projects for prevention of pollution of any waters by industry including, but not limited to, the prevention, reduction, and elimination of the discharge of pollutants. No grant shall be made for any project under this subsection unless the Administrator determines that such project will develop or demonstrate a new or improved method of treating industrial wastes or otherwise prevent pollution by industry, which method shall have industrywide application.

(d) In carrying out the provisions of this section, the Administrator shall conduct, on a priority basis, an accelerated effort to develop, refine, and achieve practical application of:

(1) waste management methods applicable to point and nonpoint sources of pollutants to eliminate the discharge of pollutants, including, but not limited to, elimination of runoff of pollutants and the effects of pollutants from inplace or accumulated sources;

(2) advanced waste treatment methods applicable to point and nonpoint sources, including inplace or accumulated sources of pollutants, and methods for reclaiming and recycling water and confining pollutants so they will not migrate to cause water or other environmental pollution; and

(3) improved methods and procedures to identify and measure the effects of pollutants on the chemical, physical, and biological integrity of water, including those pollutants created by new technological developments.

(e)(1) The Administrator is authorized to (A) make, in consultation with the Secretary of Agriculture, grants to persons for research and demonstration projects with respect to new and improved methods of preventing, reducing, and eliminating pollution from agriculture, and (B) disseminate, in cooperation with the Secretary of Agriculture, such information obtained under this subsection, section 104(p), and section 304 as will encourage and enable the adoption of such methods in the agricultural industry.

(2) The Administrator is authorized, (A) in consultation with other interested Federal agencies, to make grants for demonstration projects with respect to new and improved methods of preventing, reducing, storing, collecting, treating, or otherwise eliminating pollution from sewage in rural and other areas where collection of sewage in conventional, community-wide sewage collection systems is impractical, uneconomical, or otherwise infeasible, or where soil conditions or other factors preclude the use of septic tank and drainage field systems, and (B) in cooperation with other interested Federal and State agencies, to disseminate such information obtained under this subsection as will encourage and enable the adoption of new and improved methods developed pursuant to this subsection.

(f) Federal grants under subsection (a) of this section shall be subject to the following limitations:

(1) No grant shall be made for any project unless such project shall have been approved by the appropriate State water pollution control agency or agencies and by the Administrator;

(2) No grant shall be made for any project in an amount exceeding 75 per centum of cost thereof as determined by the Administrator; and

(3) No grant shall be made for any project unless the Administrator determines that such project will serve as a useful demonstration for the purpose set forth in clause (1) or (2) of subsection (a).

(g) Federal grants under subsections (c) and (d) of this section shall not exceed 75 per centum of the cost of the project.

(h) For the purpose of this section there is authorized to be appropriated $75,000,000 per fiscal year for the fiscal year ending June 30, 1973, the fiscal year ending June 30, 1974, and the fiscal year ending June 30, 1975, and from such appropriations at least

10 per centum of the funds actually appropriated in each fiscal year shall be available only for the purposes of subsection (e).

(i) The Administrator is authorized to make grants to a municipality to assist in the costs of operating and maintaining a project which received a grant under this section, section 104, or section 113 of this Act prior to the date of enactment of this subsection so as to reduce the operation and maintenance costs borne by the recipients of services from such project to costs comparable to those for projects assisted under title II of this Act.

(j) The Administrator is authorized to make a grant to any grantee who received an increased grant pursuant to section 202(a)(2) of this Act. Such grant may pay up to 100 per centum of the costs of technical evaluation of the operation of the treatment works, costs of training of persons (other than employees of the grantee), and costs of disseminating technical information on the operation of the treatment works.

(33 U.S.C. 1255)

GRANTS FOR POLLUTION CONTROL PROGRAMS

SEC. 106. (a) There are hereby authorized to be appropriated the following sums, to remain available until expended, to carry out the purposes of this section—

(1) $60,000,000 for the fiscal year ending June 30, 1973; and

(2) $75,000,000 for the fiscal year ending June 30, 1974, and the fiscal year ending June 30, 1975, $100,000,000 per fiscal year for the fiscal years 1977, 1978, 1979, and 1980, $75,000,000 per fiscal year for the fiscal years 1981 and 1982, such sums as may be necessary for fiscal years 1983 through 1985, and $75,000,000 per fiscal year for each of the fiscal years 1986 through 1990;

for grants to States and to interstate agencies to assist them in administering programs for the prevention, reduction, and elimination of pollution, including enforcement directly or through appropriate State law enforcement officers or agencies.

(b) From the sums appropriated in any fiscal year, the Administrator shall make allotments to the several States and interstate agencies in accordance with regulations promulgated by him on the basis of the extent of the pollution problem in the respective States.

(c) The Administrator is authorized to pay to each State and interstate agency each fiscal year either—

(1) the allotment of such State or agency for such fiscal year under subsection (b), or

(2) the reasonable costs as determined by the Administrator of developing and carrying out a pollution program by such State or agency during such fiscal year,

whichever amount is the lesser.

(d) No grant shall be made under this section to any State or interstate agency for any fiscal year when the expenditure of non-Federal funds by such State or interstate agency during such fiscal year for the recurrent expenses of carrying out its pollution control program are less than the expenditure by such State or interstate

agency of non-Federal funds for such recurrent program expenses during the fiscal year ending June 30, 1971.

(e) Beginning in fiscal year 1974 the Administrator shall not make any grant under this section to any State which has not provided or is not carrying out as a part of its program—

(1) the establishment and operation of appropriate devices, methods, systems, and procedures necessary to monitor, and to compile and analyze data on (including classification according to eutrophic condition), the quality of navigable waters and to the extent practicable, ground waters including biological monitoring; and provision for annually updating such data and including it in the report required under section 305 of this Act;

(2) authority comparable to that in section 504 of this Act and adequate contingency plans to implement such authority.

(f) Grants shall be made under this section on condition that—

(1) Such State (or interstate agency) filed with the Administrator within one hundred and twenty days after the date of enactment of this section:

(A) a summary report of the current status of the State pollution control program, including the criteria used by the State in determining priority of treatment works; and

(B) such additional information, data, and reports as the Administrator may require.

(2) No federally assumed enforcement as defined in section 309(a)(2) is in effect with respect to such State or interstate agency.

(3) Such State (or interstate agency) submits within one hundred and twenty days after the date of enactment of this section and before July 1 of each year thereafter for the Administrator's approval of its program for the prevention, reduction, and elimination of pollution in accordance with purposes and provisions of this Act in such form and content as the Administrator may prescribe.

(g) Any sums allotted under subsection (b) in any fiscal year which are not paid shall be reallotted by the Administrator in accordance with regulations promulgated by him.

(33 U.S.C. 1256)

MINE WATER POLLUTION CONTROL DEMONSTRATIONS

SEC. 107. (a) The Administrator in cooperation with the Appalachian Regional Commission and other Federal agencies is authorized to conduct, to make grants for, or to contract for, projects to demonstrate comprehensive approaches to the elimination or control of acid or other mine water pollution resulting from active or abandoned mining operations and other environmental pollution affecting water quality within all or part of a watershed or river basin, including siltation from surface mining. Such projects shall demonstrate the engineering and economic feasibility and practicality of various abatement techniques which will contribute substantially to effective and practical methods of acid or other mine water pollution elimination or control, and other pollution affecting water quality, including techniques that demonstrate the engineer-

ing and economic feasibility and practicality of using sewage sludge materials and other municipal wastes to diminish or prevent pollution affecting water quality from acid, sedimentation, or other pollutants and in such projects to restore affected lands to usefulness for forestry, agriculture, recreation, or other beneficial purposes.

(b) Prior to undertaking any demonstration project under this section in the Appalachian region (as defined in section 403 of the Appalachian Regional Development Act of 1965, as amended), the Appalachian Regional Commission shall determine that such demonstration project is consistent with the objectives of the Appalachian Regional Development Act of 1965, as amended.

(c) The Administrator, in selecting watersheds for the purposes of this section, shall be satisfied that the project area will not be affected adversely by the influx of acid or other mine water pollution from nearby sources.

(d) Federal participation in such projects shall be subject to the conditions—

(1) that the State shall acquire any land or interests therein necessary for such project; and

(2) that the State shall provide legal and practical protection to the project area to insure against any activities which will cause future acid or other mine water pollution.

(e) There is authorized to be appropriated $30,000,000 to carry out the provisions of this section, which sum shall be available until expended.

(33 U.S.C. 1257)

POLLUTION CONTROL IN GREAT LAKES

SEC. 108. (a) The Administrator, in cooperation with other Federal departments, agencies, and instrumentalities is authorized to enter into agreements with any State, political subdivision, interstate agency, or other public agency, or combination thereof, to carry out one or more projects to demonstrate new methods and techniques and to develop preliminary plans for the elimination or control of pollution, within all or any part of the watersheds of the Great Lakes. Such projects shall demonstrate the engineering and economic feasibility and practicality of removal of pollutants and prevention of any polluting matter from entering into the Great Lakes in the future and other reduction and remedial techniques which will contribute substantially to effective and practical methods of pollution prevention, reduction, or elimination.

(b) Federal participation in such projects shall be subject to the condition that the State, political subdivision, interstate agency, or other public agency, or combination thereof, shall pay not less than 25 per centum of the actual project costs, which payment may be in any form, including, but not limited to, land or interests therein that is needed for the project, and personal property or services the value of which shall be determined by the Administrator.

(c) There is authorized to be appropriated $20,000,000 to carry out the provisions of subsections (a) and (b) of this section, which sum shall be available until expended.

(d)(1) In recognition of the serious conditions which exist in Lake Erie, the Secretary of the Army, acting through the Chief of

Engineers, is directed to design and develop a demonstration waste water management program for the rehabilitation and environmental repair of Lake Erie. Prior to the initiation of detailed engineering and design, the program, along with the specific recommendations of the Chief of Engineers and recommendations for its financing, shall be submitted to the Congress for statutory approval. This authority is in addition to, and not in lieu of, other waste water studies aimed at eliminating pollution emanating from select sources around Lake Erie.

(2) This program is to be developed in cooperation with the Environmental Protection Agency, other interested departments, agencies, and instrumentalities of the Federal Government, and the States and their political subdivisions. This program shall set forth alternative systems for managing waste water on a regional basis and shall provide local and State governments with a range of choice as to the type of system to be used for the treatment of waste water. These alternative systems shall include both advanced waste treatment technology and land disposal systems including aerated treatment-spray irrigation technology and will also include provisions for the disposal of solid wastes, including sludge. Such program should include measures to control point sources of pollution, area sources of pollution, including acid-mine drainage, urban runoff and rural runoff, and in place sources of pollution, including bottom loads, sludge banks, and polluted harbor dredgings.

(e) There is authorized to be appropriated $5,000,000 to carry out the provisions of subsection (d) of this section, which sum shall be available until expended.

(33 U.S.C. 1258)

TRAINING GRANTS AND CONTRACTS

SEC. 109. (a) The Administrator is authorized to make grants to or contracts with institutions of higher education, or combinations of such institutions, to assist them in planning, developing, strengthening, improving, or carrying out programs or projects for the preparation of undergraduate students to enter an occupation which involves the design, operation, and maintenance of treatment works, and other facilities whose purpose is water quality control. Such grants or contracts may include payment of all or part of the cost of programs or projects such as—

(A) planning for the development or expansion of programs or projects for training persons in the operation and maintenance of treatment works;

(B) training and retraining of faculty members;

(C) conduct of short-term or regular session institutes for study by persons engaged in, or preparing to engage in, the preparation of students preparing to enter an occupation involving the operation and maintenance of treatment works;

(D) carrying out innovative and experimental programs of cooperative education involving alternate periods of full-time or part-time academic study at the institution and periods of full-time or part-time employment involving the operation and maintenance of treatment works; and

(E) research into, and development of, methods of training students or faculty, including the preparation of teaching materials and the planning of curriculum.

(b)(1) The Administrator may pay 100 per centum of any additional cost of construction of treatment works required for a facility to train and upgrade waste treatment works operation and maintenance personnel and for the costs of other State treatment works operator training programs, including mobile training units, classroom rental, specialized instructors, and instructional material.

(2) The Administrator shall make no more than one grant for such additional construction in any State (to serve a group of States, where, in his judgment, efficient training programs require multi-State programs), and shall make such grant after consultation with and approval by the State or States on the basis of (A) the suitability of such facility for training operation and maintenance personnel for treatment works throughout such State or States; and (B) a commitment by the State agency or agencies to carry out at such facility a program of training approved by the Administrator. In any case where a grant is made to serve two or more States, the Administrator is authorized to make an additional grant for a supplemental facility in each such State.

(3) The Administrator may make such grant out of the sums allocated to a State under section 205 of this Act, except that in no event shall the Federal cost of any such training facilities exceed $500,000.

(4) The Administrator may exempt a grant under this section from any requirement under section 204(a)(3) of this Act. Any grantee who received a grant under this section prior to enactment of the Clean Water Act of 1977 shall be eligible to have its grant increased by funds made available under such Act.

(33 U.S.C. 1259)

APPLICATION FOR TRAINING GRANT OR CONTRACT; ALLOCATION OF GRANTS OR CONTRACTS

SEC. 110. (1) A grant or contract authorized by section 109 may be made only upon application to the Administrator at such time or times and containing such information as he may prescribe, except that no such application shall be approved unless it—

(A) sets forth programs, activities, research, or development for which a grant is authorized under section 109 and describes the relation to any program set forth by the applicant in an application, if any, submitted pursuant to section 111;

(B) provides such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of and accounting for Federal funds paid to the applicant under this section; and

(C) provides for making such reports, in such form and containing such information, as the Administrator may require to carry out his functions under this section, and for keeping such records and for affording such access thereto as the Administrator may find necessary to assure the correctness and verification of such reports.

(2) The Administrator shall allocate grants or contracts under section 109 in such manner as will most nearly provide an equitable distribution of the grants or contracts throughout the United States among institutions of higher education which show promise of being able to use funds effectively for the purpose of this section.

(3)(A) Payments under this section may be used in accordance with regulations of the Administrator, and subject to the terms and conditions set forth in an application approved under paragraph (1), to pay part of the compensation of students employed in connection with the operation and maintenance of treatment works, other than as an employee in connection with the operation and maintenance of treatment works or as an employee in any branch of the Government of the United States, as part of a program for which a grant has been approved pursuant to this section.

(B) Departments and agencies of the United States are encouraged, to the extent consistent with efficient Administration, to enter into arrangements with institutions of higher education for the full-time, part-time, or temporary employment, whether in the competitive or excepted service, of students enrolled in programs set forth in applications approved under paragraph (1).

(33 U.S.C. 1260)

AWARD OF SCHOLARSHIPS

SEC. 111. (1) The Administrator is authorized to award scholarships in accordance with the provisions of this section for undergraduate study by persons who plan to enter an occupation involving the operation and maintenance of treatment works. Such scholarships shall be awarded for such periods as the Administrator may determine but not to exceed four academic years.

(2) The Administrator shall allocate scholarships under this section among institutions of higher education with programs approved under the provisions of this section for the use of individuals accepted into such programs, in such manner and accordance to such plan as will insofar as practicable—

(A) provide an equitable distribution of such scholarships throughout the United States; and

(B) attract recent graduates of secondary schools to enter an occupation involving the operation and maintenance of treatment works.

(3) The Administrator shall approve a program of any institution of higher education for the purposes of this section only upon application by the institution and only upon his finding—

(A) that such program has as a principal objective the education and training of persons in the operation and maintenance of treatment works;

(B) that such program is in effect and of high quality, or can be readily put into effect and may reasonably be expected to be of high quality;

(C) that the application describes the relation of such program to any program, activity, research, or development set forth by the applicant in an application, if any, submitted pursuant to section 110 of this Act; and

(D) that the application contains satisfactory assurances that (i) the institution will recommend to the Administrator for the award of scholarships under this section, for study in such program, only persons who have demonstrated to the satisfaction of the institution a serious intent, upon completing the program, to enter an occupation involving the operation and maintenance of treatment works, and (ii) the institution will make reasonable continuing efforts to encourage recipients of scholarships under this section, enrolled in such program, to enter occupations involving the operation and maintenance of treatment works upon completing the program.

(4)(A) The Administrator shall pay to persons awarded scholarships under this section such stipends (including such allowances for subsistence and other expenses for such persons and their dependents) as he may determine to be consistent with prevailing practices under comparable federally supported programs.

(B) The Administrator shall (in addition to the stipends paid to persons under paragraph (1)) pay to the institution of higher education at which such person is pursuing his course of study such amount as he may determine to be consistent with prevailing practices under comparable federally supported programs.

(5) A person awarded a scholarship under the provisions of this section shall continue to receive the payments provided in this section only during such periods as the Administrator finds that he is maintaining satisfactory proficiency and devoting full time to study or research in the field in which such scholarship was awarded in an institution of higher education, and is not engaging in gainful employment other than employment approved by the Administrator by or pursuant to regulation.

(6) The Administrator shall by regulation provide that any person awarded a scholarship under this section shall agree in writing to enter and remain in an occupation involving the design, operation, or maintenance of treatment works for such period after completion of his course of studies as the Administrator determines appropriate.

(33 U.S.C. 1261)

DEFINITIONS AND AUTHORIZATIONS

SEC. 112. (a) As used in sections 109 through 112 of this Act—

(1) The term "institution of higher education" means an educational institution described in the first sentence of section 101 of the Higher Education Act of 1965 (other than an institution of any agency of the United States) which is accredited by a nationally recognized accrediting agency or association approved by the Administrator for this purpose. For purposes of this subsection, the Administrator shall publish a list of nationally recognized accrediting agencies or associations which he determines to be reliable authority as to the quality of training offered.

(2) The term "academic year" means an academic year or its equivalent, as determined by the Administrator.

(b) The Administrator shall annually report his activities under sections 109 through 112 of this Act, including recommendations for needed revisions in the provisions thereof.

(c) There are authorized to be appropriated $25,000,000 per fiscal year for fiscal years ending June 30, 1973, June 30, 1974, and June 30, 1975, $6,000,000 for the fiscal year ending September 30, 1977, $7,000,000 for the fiscal year ending September 30, 1978, $7,000,000 for the fiscal year ending September 30, 1979, $7,000,000 for the fiscal year ending September 30, 1980, $7,000,000 for the fiscal year ending September 30, 1981, $7,000,000 for the fiscal year ending September 30, 1982, such sums as may be necessary for fiscal years 1983 through 1985, and $7,000,000 per fiscal year for each of the fiscal years 1986 through 1990, to carry out sections 109 through 112 of this Act.

(33 U.S.C. 1262)

ALASKA VILLAGE DEMONSTRATION PROJECTS

SEC. 113. (a) The Administrator is authorized to enter into agreements with the State of Alaska to carry out one or more projects to demonstrate methods to provide for central community facilities for safe water and elimination or control of pollution in those native villages of Alaska without such facilities. Such project shall include provisions for community safe water supply systems, toilets, bathing and laundry facilities, sewage disposal facilities, and other similar facilities, and educational and informational facilities and programs relating to health and hygiene. Such demonstration projects shall be for the further purpose of developing preliminary plans for providing such safe water and such elimination or control of pollution for all native villages in such State.

(b) In carrying out this section the Administrator shall cooperate with the Secretary of Health, Education, and Welfare for the purpose of utilizing such of the personnel and facilities of that Department as may be appropriate.

(c) The Administrator shall report to Congress not later than July 1, 1973, the results of the demonstration projects authorized by this section together with his recommendations, including and necessary legislation, relating to the establishment of a statewide program.

(d) There is authorized to be appropriated not to exceed $2,000,000 to carry out this section. In addition, there is authorized to be appropriated to carry out this section not to exceed $200,000 for the fiscal year ending September 30, 1978, and $220,000 for the fiscal year ending September 30, 1979.

(e) The Administrator is authorized to coordinate with the Secretary of the Department of Health, Education, and Welfare, the Secretary of the Department of Housing and Urban Development, the Secretary of the Department of the Interior, the Secretary of the Department of Agriculture, and the heads of any other departments or agencies he may deem appropriate to conduct a joint study with representatives of the State of Alaska and the appropriate Native organizations (as defined in Public Law 92–203) to develop a comprehensive program for achieving adequate sanitation services in Alaska villages. This study shall be coordinated

with the programs and projects authorized by sections 104(q) and 105(e)(2) of this Act. The Administrator shall submit a report of the results of the study, together with appropriate supporting data and such recommendations as he deems desirable, to the Committee on Environment and Public Works of the Senate and to the Committee on Public Works and Transportation of the House of Representatives not later than December 31, 1979. The Administrator shall also submit recommended administrative actions, procedures, and any proposed legislation necessary to implement the recommendations of the study no later than June 30, 1980.

(f) The Administrator is authorized to provide technical, financial and management assistance for operation and maintenance of the demonstration projects constructed under this section, until such time as the recommendations of subsection (e) are implemented.

(g) For the purpose of this section, the term "village" shall mean an incorporated or unincorporated community with a population of ten to six hundred people living within a two-mile radius. The term "sanitation services" shall mean water supply, sewage disposal, solid waste disposal and other services necessary to maintain generally accepted standards of personal hygiene and public health.

(33 U.S.C. 1263)

LAKE TAHOE STUDY

SEC. 114. (a) The Administrator, in consultation with the Tahoe Regional Planning Agency, the Secretary of Agriculture, other Federal agencies, representatives of State and local governments, and members of the public, shall conduct a thorough and complete study on the adequacy of and need for extending Federal oversight and control in order to preserve the fragile ecology of Lake Tahoe.

(b) Such study shall include an examination of the interrelationships and responsibilities of the various agencies of the Federal Government and State and local governments with a view to establishing the necessity for redefinition of legal and other arrangements between these various governments, and making specific legislative recommendations to Congress. Such study shall consider the effect of various actions in terms of their environmental impact on the Tahoe Basin, treated as an ecosystem.

(c) The Administrator shall report on such study to Congress not later than one year after the date of enactment of this subsection.

(d) There is authorized to be appropriated to carry out this section not to exceed $500,000.

(33 U.S.C. 1264)

IN-PLACE TOXIC POLLUTANTS

SEC. 115. The Administrator is directed to identify the location of in-place pollutants with emphasis on toxic pollutants in harbors and navigable waterways and is authorized, acting through the Secretary of the Army, to make contracts for the removal and appropriate disposal of such materials from critical port and harbor

areas. There is authorized to be appropriated $15,000,000 to carry out the provisions of this section, which sum shall be available until expended.

(33 U.S.C. 1265)

HUDSON RIVER PCB RECLAMATION DEMONSTRATION PROJECT

SEC. 116. (a) The Administrator is authorized to enter into contracts and other agreements with the State of New York to carry out a project to demonstrate methods for the selective removal of polychlorinated biphenyls contaminating bottom sediments of the Hudson River, treating such sediments as required, burying such sediments in secure landfills, and installing monitoring systems for such landfills. Such demonstration project shall be for the purpose of determining the feasibility of indefinite storage in secure landfills of toxic substances and of ascertaining the improvement of the rate of recovery of a toxic contaminated national waterway. No pollutants removed pursuant to this paragraph shall be placed in any landfill unless the Administrator first determines that disposal of the pollutants in such landfill would provide a higher standard of protection of the public health, safety, and welfare than disposal of such pollutants by any other method including, but not limited to, incineration or a chemical destruction process.

(b) The Administrator is authorized to make grants to the State of New York to carry out this section from funds allotted to such State under section 205(a) of this Act, except that the amount of any such grant shall be equal to 75 per centum of the cost of the project and such grant shall be made on condition that non-Federal sources provide the remainder of the cost of such project. The authority of this section shall be available until September 30, 1983. Funds allotted to the State of New York under section 205(a) shall be available under this subsection only to the extent that funds are not available, as determined by the Administrator, to the State of New York for the work authorized by this section under section 115 or 311 of this Act or a comprehensive hazardous substance response and clean up fund. Any funds used under the authority of this subsection shall be deducted from any estimate of the needs of the State of New York prepared under section 516. The Administrator may not obligate or expend more than $20,000,000 to carry out this section.

(33 U.S.C. 1266)

SEC. 117. CHESAPEAKE BAY.

(a) DEFINITIONS.—In this section, the following definitions apply:

(1) ADMINISTRATIVE COST.—The term "administrative cost" means the cost of salaries and fringe benefits incurred in administering a grant under this section.

(2) CHESAPEAKE BAY AGREEMENT.—The term "Chesapeake Bay Agreement" means the formal, voluntary agreements executed to achieve the goal of restoring and protecting the Chesapeake Bay ecosystem and the living resources of the Chesapeake Bay ecosystem and signed by the Chesapeake Executive Council.

(3) CHESAPEAKE BAY ECOSYSTEM.—The term "Chesapeake Bay ecosystem" means the ecosystem of the Chesapeake Bay and its watershed.

(4) CHESAPEAKE BAY PROGRAM.—The term "Chesapeake Bay Program" means the program directed by the Chesapeake Executive Council in accordance with the Chesapeake Bay Agreement.

(5) CHESAPEAKE EXECUTIVE COUNCIL.—The term "Chesapeake Executive Council" means the signatories to the Chesapeake Bay Agreement.

(6) SIGNATORY JURISDICTION.—The term "signatory jurisdiction" means a jurisdiction of a signatory to the Chesapeake Bay Agreement.

(b) CONTINUATION OF CHESAPEAKE BAY PROGRAM.—

(1) IN GENERAL.—In cooperation with the Chesapeake Executive Council (and as a member of the Council), the Administrator shall continue the Chesapeake Bay Program.

(2) PROGRAM OFFICE.—

(A) IN GENERAL.—The Administrator shall maintain in the Environmental Protection Agency a Chesapeake Bay Program Office.

(B) FUNCTION.—The Chesapeake Bay Program Office shall provide support to the Chesapeake Executive Council by—

(i) implementing and coordinating science, research, modeling, support services, monitoring, data collection, and other activities that support the Chesapeake Bay Program;

(ii) developing and making available, through publications, technical assistance, and other appropriate means, information pertaining to the environmental quality and living resources of the Chesapeake Bay ecosystem;

(iii) in cooperation with appropriate Federal, State, and local authorities, assisting the signatories to the Chesapeake Bay Agreement in developing and implementing specific action plans to carry out the responsibilities of the signatories to the Chesapeake Bay Agreement;

(iv) coordinating the actions of the Environmental Protection Agency with the actions of the appropriate officials of other Federal agencies and State and local authorities in developing strategies to—

(I) improve the water quality and living resources in the Chesapeake Bay ecosystem; and

(II) obtain the support of the appropriate officials of the agencies and authorities in achieving the objectives of the Chesapeake Bay Agreement; and

(v) implementing outreach programs for public information, education, and participation to foster stewardship of the resources of the Chesapeake Bay.

(c) INTERAGENCY AGREEMENTS.—The Administrator may enter into an interagency agreement with a Federal agency to carry out this section.

(d) TECHNICAL ASSISTANCE AND ASSISTANCE GRANTS.—

(1) IN GENERAL.—In cooperation with the Chesapeake Executive Council, the Administrator may provide technical assistance, and assistance grants, to nonprofit organizations, State and local governments, colleges, universities, and interstate agencies to carry out this section, subject to such terms and conditions as the Administrator considers appropriate.

(2) FEDERAL SHARE.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the Federal share of an assistance grant provided under paragraph (1) shall be determined by the Administrator in accordance with guidance issued by the Administrator.

(B) SMALL WATERSHED GRANTS PROGRAM.—The Federal share of an assistance grant provided under paragraph (1) to carry out an implementing activity under subsection (g)(2) shall not exceed 75 percent of eligible project costs, as determined by the Administrator.

(3) NON-FEDERAL SHARE.—An assistance grant under paragraph (1) shall be provided on the condition that non-Federal sources provide the remainder of eligible project costs, as determined by the Administrator.

(4) ADMINISTRATIVE COSTS.—Administrative costs shall not exceed 10 percent of the annual grant award.

(e) IMPLEMENTATION AND MONITORING GRANTS.—

(1) IN GENERAL.—If a signatory jurisdiction has approved and committed to implement all or substantially all aspects of the Chesapeake Bay Agreement, on the request of the chief executive of the jurisdiction, the Administrator—

(A) shall make a grant to the jurisdiction for the purpose of implementing the management mechanisms established under the Chesapeake Bay Agreement, subject to such terms and conditions as the Administrator considers appropriate; and

(B) may make a grant to a signatory jurisdiction for the purpose of monitoring the Chesapeake Bay ecosystem.

(2) PROPOSALS.—

(A) IN GENERAL.—A signatory jurisdiction described in paragraph (1) may apply for a grant under this subsection for a fiscal year by submitting to the Administrator a comprehensive proposal to implement management mechanisms established under the Chesapeake Bay Agreement.

(B) CONTENTS.—A proposal under subparagraph (A) shall include—

(i) a description of proposed management mechanisms that the jurisdiction commits to take within a specified time period, such as reducing or preventing pollution in the Chesapeake Bay and its watershed or meeting applicable water quality standards or established goals and objectives under the Chesapeake Bay Agreement; and

(ii) the estimated cost of the actions proposed to be taken during the fiscal year.

(3) APPROVAL.—If the Administrator finds that the proposal is consistent with the Chesapeake Bay Agreement and the national goals established under section 101(a), the Administrator may approve the proposal for an award.

(4) FEDERAL SHARE.—The Federal share of a grant under this subsection shall not exceed 50 percent of the cost of implementing the management mechanisms during the fiscal year.

(5) NON-FEDERAL SHARE.—A grant under this subsection shall be made on the condition that non-Federal sources provide the remainder of the costs of implementing the management mechanisms during the fiscal year.

(6) ADMINISTRATIVE COSTS.—Administrative costs shall not exceed 10 percent of the annual grant award.

(7) REPORTING.—On or before October 1 of each fiscal year, the Administrator shall make available to the public a document that lists and describes, in the greatest practicable degree of detail—

(A) all projects and activities funded for the fiscal year;

(B) the goals and objectives of projects funded for the previous fiscal year; and

(C) the net benefits of projects funded for previous fiscal years.

(f) FEDERAL FACILITIES AND BUDGET COORDINATION.—

(1) SUBWATERSHED PLANNING AND RESTORATION.—A Federal agency that owns or operates a facility (as defined by the Administrator) within the Chesapeake Bay watershed shall participate in regional and subwatershed planning and restoration programs.

(2) COMPLIANCE WITH AGREEMENT.—The head of each Federal agency that owns or occupies real property in the Chesapeake Bay watershed shall ensure that the property, and actions taken by the agency with respect to the property, comply with the Chesapeake Bay Agreement, the Federal Agencies Chesapeake Ecosystem Unified Plan, and any subsequent agreements and plans.

(3) BUDGET COORDINATION.—

(A) IN GENERAL.—As part of the annual budget submission of each Federal agency with projects or grants related to restoration, planning, monitoring, or scientific investigation of the Chesapeake Bay ecosystem, the head of the agency shall submit to the President a report that describes plans for the expenditure of the funds under this section.

(B) DISCLOSURE TO THE COUNCIL.—The head of each agency referred to in subparagraph (A) shall disclose the report under that subparagraph with the Chesapeake Executive Council as appropriate.

(g) CHESAPEAKE BAY PROGRAM.—

(1) MANAGEMENT STRATEGIES.—The Administrator, in coordination with other members of the Chesapeake Executive Council, shall ensure that management plans are developed

and implementation is begun by signatories to the Chesapeake Bay Agreement to achieve and maintain—

(A) the nutrient goals of the Chesapeake Bay Agreement for the quantity of nitrogen and phosphorus entering the Chesapeake Bay and its watershed;

(B) the water quality requirements necessary to restore living resources in the Chesapeake Bay ecosystem;

(C) the Chesapeake Bay Basinwide Toxins Reduction and Prevention Strategy goal of reducing or eliminating the input of chemical contaminants from all controllable sources to levels that result in no toxic or bioaccumulative impact on the living resources of the Chesapeake Bay ecosystem or on human health;

(D) habitat restoration, protection, creation, and enhancement goals established by Chesapeake Bay Agreement signatories for wetlands, riparian forests, and other types of habitat associated with the Chesapeake Bay ecosystem; and

(E) the restoration, protection, creation, and enhancement goals established by the Chesapeake Bay Agreement signatories for living resources associated with the Chesapeake Bay ecosystem.

(2) SMALL WATERSHED GRANTS PROGRAM.—The Administrator, in cooperation with the Chesapeake Executive Council, shall—

(A) establish a small watershed grants program as part of the Chesapeake Bay Program; and

(B) offer technical assistance and assistance grants under subsection (d) to local governments and nonprofit organizations and individuals in the Chesapeake Bay region to implement—

(i) cooperative tributary basin strategies that address the water quality and living resource needs in the Chesapeake Bay ecosystem; and

(ii) locally based protection and restoration programs or projects within a watershed that complement the tributary basin strategies, including the creation, restoration, protection, or enhancement of habitat associated with the Chesapeake Bay ecosystem.

(h) STUDY OF CHESAPEAKE BAY PROGRAM.—

(1) IN GENERAL.—Not later than April 22, 2003, and every 5 years thereafter, the Administrator, in coordination with the Chesapeake Executive Council, shall complete a study and submit to Congress a comprehensive report on the results of the study.

(2) REQUIREMENTS.—The study and report shall—

(A) assess the state of the Chesapeake Bay ecosystem;

(B) compare the current state of the Chesapeake Bay ecosystem with its state in 1975, 1985, and 1995;

(C) assess the effectiveness of management strategies being implemented on the date of enactment of this section and the extent to which the priority needs are being met;

(D) make recommendations for the improved management of the Chesapeake Bay Program either by strength-

ening strategies being implemented on the date of enactment of this section or by adopting new strategies; and

(E) be presented in such a format as to be readily transferable to and usable by other watershed restoration programs.

(i) SPECIAL STUDY OF LIVING RESOURCE RESPONSE.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Administrator shall commence a 5-year special study with full participation of the scientific community of the Chesapeake Bay to establish and expand understanding of the response of the living resources of the Chesapeake Bay ecosystem to improvements in water quality that have resulted from investments made through the Chesapeake Bay Program.

(2) REQUIREMENTS.—The study shall—

(A) determine the current status and trends of living resources, including grasses, benthos, phytoplankton, zooplankton, fish, and shellfish;

(B) establish to the extent practicable the rates of recovery of the living resources in response to improved water quality condition;

(C) evaluate and assess interactions of species, with particular attention to the impact of changes within and among trophic levels; and

(D) recommend management actions to optimize the return of a healthy and balanced ecosystem in response to improvements in the quality and character of the waters of the Chesapeake Bay.

(j) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $40,000,000 for each of fiscal years 2001 through 2005. Such sums shall remain available until expended.

(33 U.S.C. 1267)

SEC. 118. GREAT LAKES.

(a) FINDINGS, PURPOSE, AND DEFINITIONS.—

(1) FINDINGS.—The Congress finds that—

(A) the Great Lakes are a valuable national resource, continuously serving the people of the United States and other nations as an important source of food, fresh water, recreation, beauty, and enjoyment;

(B) the United States should seek to attain the goals embodied in the Great Lakes Water Quality Agreement of 1978, as amended by the Water Quality Agreement of 1987 and any other agreements and amendments, with particular emphasis on goals related to toxic pollutants; and

(C) the Environmental Protection Agency should take the lead in the effort to meet those goals, working with other Federal agencies and State and local authorities.

(2) PURPOSE.—It is the purpose of this section to achieve the goals embodied in the Great Lakes Water Quality Agreement of 1978, as amended by the Water Quality Agreement of 1987 and any other agreements and amendments, through im-

proved organization and definition of mission on the part of the Agency, funding of State grants for pollution control in the Great Lakes area, and improved accountability for implementation of such agreement.

(3) DEFINITIONS.—For purposes of this section, the term—

(A) "Agency" means the Environmental Protection Agency;

(B) "Great Lakes" means Lake Ontario, Lake Erie, Lake Huron (including Lake St. Clair), Lake Michigan, and Lake Superior, and the connecting channels (Saint Mary's River, Saint Clair River, Detroit River, Niagara River, and Saint Lawrence River to the Canadian Border);

(C) "Great Lakes System" means all the streams, rivers, lakes, and other bodies of water within the drainage basin of the Great Lakes;

(D) "Program Office" means the Great Lakes National Program Office established by this section;

(E) "Research Office" means the Great Lakes Research Office established by subsection (d);

(F) "area of concern" means a geographic area located within the Great Lakes, in which beneficial uses are impaired and which has been officially designated as such under Annex 2 of the Great Lakes Water Quality Agreement;

(G) "Great Lakes States" means the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin;

(H) "Great Lakes Water Quality Agreement" means the bilateral agreement, between the United States and Canada which was signed in 1978 and amended by the Protocol of 1987;

(I) "Lakewide Management Plan" means a written document which embodies a systematic and comprehensive ecosystem approach to restoring and protecting the beneficial uses of the open waters of each of the Great Lakes, in accordance with article VI and Annex 2 of the Great Lakes Water Quality Agreement; and

(J) "Remedial Action Plan" means a written document which embodies a systematic and comprehensive ecosystem approach to restoring and protecting the beneficial uses of areas of concern, in accordance with article VI and Annex 2 of the Great Lakes Water Quality Agreement.

(b) GREAT LAKES NATIONAL PROGRAM OFFICE.—The Great Lakes National Program Office (previously established by the Administrator) is hereby established within the Agency. The Program Office shall be headed by a Director who, by reason of management experience and technical expertise relating to the Great Lakes, is highly qualified to direct the development of programs and plans on a variety of Great Lakes issues. The Great Lakes National Program Office shall be located in a Great Lakes State.

(c) GREAT LAKES MANAGEMENT.—

(1) FUNCTIONS.—The Program Office shall—

(A) in cooperation with appropriate Federal, State, tribal, and international agencies, and in accordance with

section 101(e) of this Act, develop and implement specific action plans to carry out the responsibilities of the United States under the Great Lakes Water Quality Agreement of 1978, as amended by the Water Quality Agreement of 1987 and any other agreements and amendments,;[1]

(B) establish a Great Lakes system-wide surveillance network to monitor the water quality of the Great Lakes, with specific emphasis on the monitoring of toxic pollutants;

(C) serve as the liaison with, and provide information to, the Canadian members of the International Joint Commission and the Canadian counterpart to the Agency;

(D) coordinate actions of the Agency (including actions by headquarters and regional offices thereof) aimed at improving Great Lakes water quality; and

(E) coordinate actions of the Agency with the actions of other Federal agencies and State and local authorities, so as to ensure the input of those agencies and authorities in developing water quality strategies and obtain the support of those agencies and authorities in achieving the objectives of such agreement.

(2) GREAT LAKES WATER QUALITY GUIDANCE.—

(A) By June 30, 1991, the Administrator, after consultation with the Program Office, shall publish in the Federal Register for public notice and comment proposed water quality guidance for the Great Lakes System. Such guidance shall conform with the objectives and provisions of the Great Lakes Water Quality Agreement, shall be no less restrictive than the provisions of this Act and national water quality criteria and guidance, shall specify numerical limits on pollutants in ambient Great Lakes waters to protect human health, aquatic life, and wildlife, and shall provide guidance to the Great Lakes States on minimum water quality standards, antidegradation policies, and implementation procedures for the Great Lakes System.

(B) By June 30, 1992, the Administrator, in consultation with the Program Office, shall publish in the Federal Register, pursuant to this section and the Administrator's authority under this chapter, final water quality guidance for the Great Lakes System.

(C) Within two years after such Great Lakes guidance is published, the Great Lakes States shall adopt water quality standards, antidegradation policies, and implementation procedures for waters within the Great Lakes System which are consistent with such guidance. If a Great Lakes State fails to adopt such standards, policies, and procedures, the Administrator shall promulgate them not later than the end of such two-year period. When reviewing any Great Lakes State's water quality plan, the agency shall consider the extent to which the State has complied with the Great Lakes guidance issued pursuant to this section.

[1] See P.L. 100–688, section 1008.

(3) REMEDIAL ACTION PLANS.—

(A) For each area of concern for which the United States has agreed to draft a Remedial Action Plan, the Program Office shall ensure that the Great Lakes State in which such area of concern is located—

(i) submits a Remedial Action Plan to the Program Office by June 30, 1991;

(ii) submits such Remedial Action Plan to the International Joint Commission by January 1, 1992; and

(iii) includes such Remedial Action Plans within the State's water quality plan by January 1, 1993.

(B) For each area of concern for which Canada has agreed to draft a Remedial Action Plan, the Program Office shall, pursuant to subparagraph (c)(1)(C) of this section, work with Canada to assure the submission of such Remedial Action Plans to the International Joint Commission by June 30, 1991, and to finalize such Remedial Action Plans by January 1, 1993.

(C) For any area of concern designated as such subsequent to the enactment of this Act, the Program Office shall (i) if the United States has agreed to draft the Remedial Action Plan, ensure that the Great Lakes State in which such area of concern is located submits such Plan to the Program Office within two years of the area's designation, submits it to the International Joint Commission no later than six months after submitting it to the Program Office, and includes such Plan in the State's water quality plan no later than one year after submitting it to the Commission; and (ii) if Canada has agreed to draft the Remedial Action Plan, work with Canada, pursuant to subparagraph (c)(1)(C) of this section, to ensure the submission of such Plan to the International Joint Commission within two years of the area's designation and the finalization of such Plan no later than eighteen months after submitting it to such Commission.

(D) The Program Office shall compile formal comments on individual Remedial Action Plans made by the International Joint Commission pursuant to section 4(d) of Annex 2 of the Great Lakes Water Quality Agreement and, upon request by a member of the public, shall make such comments available for inspection and copying. The Program Office shall also make available, upon request, formal comments made by the Environmental Protection Agency on individual Remedial Action Plans.

(E) REPORT.—Not later than 1 year after the date of enactment of this subparagraph, the Administrator shall submit to Congress a report on such actions, time periods, and resources as are necessary to fulfill the duties of the Agency relating to oversight of Remedial Action Plans under—

(i) this paragraph; and

(ii) the Great Lakes Water Quality Agreement.

(4) LAKEWIDE MANAGEMENT PLANS.—The Administrator, in consultation with the Program Office shall—

(A) by January 1, 1992, publish in the Federal Register a proposed Lakewide Management Plan for Lake Michigan and solicit public comments;

(B) by January 1, 1993, submit a proposed Lakewide Management Plan for Lake Michigan to the International Joint Commission for review; and

(C) by January 1, 1994, publish in the Federal Register a final Lakewide Management Plan for Lake Michigan and begin implementation.

Nothing in this subparagraph shall preclude the simultaneous development of Lakewide Management Plans for the other Great Lakes.

(5) SPILLS OF OIL AND HAZARDOUS MATERIALS.—The Program Office, in consultation with the Coast Guard, shall identify areas within the Great Lakes which are likely to experience numerous or voluminous spills of oil or other hazardous materials from land based facilities, vessels, or other sources and, in consultation with the Great Lakes States, shall identify weaknesses in Federal and State programs and systems to prevent and respond to such spills. This information shall be included on at least a biennial basis in the report required by this section.

(6) 5-YEAR PLAN AND PROGRAM.—The Program Office shall develop, in consultation with the States, a five-year plan and program for reducing the amount of nutrients introduced into the Great Lakes. Such program shall incorporate any management program for reducing nutrient runoff from nonpoint sources established under section 319 of this Act and shall include a program for monitoring nutrient runoff into, and ambient levels in, the Great Lakes.

(7) 5-YEAR STUDY AND DEMONSTRATION PROJECTS.—(A) The Program Office shall carry out a five-year study and demonstration projects relating to the control and removal of toxic pollutants in the Great Lakes, with emphasis on the removal of toxic pollutants from bottom sediments. In selecting locations for conducting demonstration projects under this paragraph, priority consideration shall be given to projects at the following locations: Saginaw Bay, Michigan; Sheboygan Harbor, Wisconsin; Grand Calumet River, Indiana; Ashtabula River, Ohio; and Buffalo River, New York.

(B) The Program Office shall—

(i) by December 31, 1990, complete chemical, physical, and biological assessments of the contaminated sediments at the locations selected for the study and demonstration projects;

(ii) by December 31, 1990, announce the technologies that will be demonstrated at each location and the numerical standard of protection intended to be achieved at each location;

(iii) by December 31, 1992, complete full or pilot scale demonstration projects on site at each location of

promising technologies to remedy contaminated sediments; and

(iv) by December 31, 1993, issue a final report to Congress on its findings.

(C) The Administrator, after providing for public review and comment, shall publish information concerning the public health and environmental consequences of contaminants in Great Lakes sediment. Information published pursuant to this subparagraph shall include specific numerical limits to protect health, aquatic life, and wildlife from the bioaccumulation of toxins. The Administrator shall, at a minimum, publish information pursuant to this subparagraph within 2 years of the date of the enactment of this title.

(8) ADMINISTRATOR'S RESPONSIBILITY.—The Administrator shall ensure that the Program Office enters into agreements with the various organizational elements of the Agency involved in Great Lakes activities and the appropriate State agencies specifically delineating—

(A) the duties and responsibilities of each such element in the Agency with respect to the Great Lakes;

(B) the time periods for carrying out such duties and responsibilities; and

(C) the resources to be committed to such duties and responsibilities.

(9) BUDGET ITEM.—The Administrator shall, in the Agency's annual budget submission to Congress, include a funding request for the Program Office as a separate budget line item.

(10) COMPREHENSIVE REPORT.—Within 90 days after the end of each fiscal year, the Administrator shall submit to Congress a comprehensive report which—

(A) describes the achievements in the preceding fiscal year in implementing the Great Lakes Water Quality Agreement of 1978 and shows by categories (including judicial enforcement, research, State cooperative efforts, and general administration) the amounts expended on Great Lakes water quality initiatives in such preceding fiscal year;

(B) describes the progress made in such preceding fiscal year in implementing the system of surveillance of the water quality in the Great Lakes System, including the monitoring of groundwater and sediment, with particular reference to toxic pollutants;

(C) describes the long-term prospects for improving the condition of the Great Lakes; and

(D) provides a comprehensive assessment of the planned efforts to be pursued in the succeeding fiscal year for implementing the Great Lakes Water Quality Agreement of 1978, which assessment shall—

(i) show by categories (including judicial enforcement, research, State cooperative efforts, and general administration) the amount anticipated to be expended on Great Lakes water quality initiatives in the fiscal year to which the assessment relates; and

(ii) include a report of current programs administered by other Federal agencies which make available resources to the Great Lakes water quality management efforts.

(11) CONFINED DISPOSAL FACILITIES.—(A) The Administrator, in consultation with the Assistant Secretary of the Army for Civil Works, shall develop and implement, within one year of the date of enactment of this paragraph, management plans for every Great Lakes confined disposal facility.

(B) The plan shall provide for monitoring of such facilities, including—

(i) water quality at the site and in the area of the site;

(ii) sediment quality at the site and in the area of the site;

(iii) the diversity, productivity, and stability of aquatic organisms at the site and in the area of the site; and

(iv) such other conditions as the Administrator deems appropriate.

(C) The plan shall identify the anticipated use and management of the site over the following twenty-year period including the expected termination of dumping at the site, the anticipated need for site management, including pollution control, following the termination of the use of the site.

(D) The plan shall identify a schedule for review and revision of the plan which shall not be less frequent than five years after adoption of the plan and every five years thereafter.

(12) REMEDIATION OF SEDIMENT CONTAMINATION IN AREAS OF CONCERN.—

(A) IN GENERAL.—In accordance with this paragraph, the Administrator, acting through the Program Office, may carry out projects that meet the requirements of subparagraph (B).

(B) ELIGIBLE PROJECTS.—A project meets the requirements of this subparagraph if the project is to be carried out in an area of concern located wholly or partially in the United States and the project—

(i) monitors or evaluates contaminated sediment;

(ii) subject to subparagraph (D), implements a plan to remediate contaminated sediment; or

(iii) prevents further or renewed contamination of sediment.

(C) PRIORITY.—In selecting projects to carry out under this paragraph, the Administrator shall give priority to a project that—

(i) constitutes remedial action for contaminated sediment;

(ii)(I) has been identified in a Remedial Action Plan submitted under paragraph (3); and

(II) is ready to be implemented;

(iii) will use an innovative approach, technology, or technique that may provide greater environmental benefits, or equivalent environmental benefits at a reduced cost; or

(iv) includes remediation to be commenced not later than 1 year after the date of receipt of funds for the project.

(D) LIMITATION.—The Administrator may not carry out a project under this paragraph for remediation of contaminated sediments located in an area of concern—

(i) if an evaluation of remedial alternatives for the area of concern has not been conducted, including a review of the short-term and long-term effects of the alternatives on human health and the environment; or

(ii) if the Administrator determines that the area of concern is likely to suffer significant further or renewed contamination from existing sources of pollutants causing sediment contamination following completion of the project.

(E) NON-FEDERAL SHARE.—

(i) IN GENERAL.—The non-Federal share of the cost of a project carried out under this paragraph shall be at least 35 percent.

(ii) IN-KIND CONTRIBUTIONS.—The non-Federal share of the cost of a project carried out under this paragraph may include the value of in-kind services contributed by a non-Federal sponsor.

(iii) NON-FEDERAL SHARE.—The non-Federal share of the cost of a project carried out under this paragraph—

(I) may include monies paid pursuant to, or the value of any in-kind service performed under, an administrative order on consent or judicial consent decree; but

(II) may not include any funds paid pursuant to, or the value of any in-kind service performed under, a unilateral administrative order or court order.

(iv) OPERATION AND MAINTENANCE.—The non-Federal share of the cost of the operation and maintenance of a project carried out under this paragraph shall be 100 percent.

(F) MAINTENANCE OF EFFORT.—The Administrator may not carry out a project under this paragraph unless the non-Federal sponsor enters into such agreements with the Administrator as the Administrator may require to ensure that the non-Federal sponsor will maintain its aggregate expenditures from all other sources for remediation programs in the area of concern in which the project is located at or above the average level of such expenditures in the 2 fiscal years preceding the date on which the project is initiated.

(G) COORDINATION.—In carrying out projects under this paragraph, the Administrator shall coordinate with the Secretary of the Army, and with the Governors of States in which the projects are located, to ensure that Federal and State assistance for remediation in areas of concern is used as efficiently as practicable.

(H) AUTHORIZATION OF APPROPRIATIONS.—

(i) IN GENERAL.—In addition to other amounts authorized under this section, there is authorized to be appropriated to carry out this paragraph $50,000,000 for each of fiscal years 2004 through 2008.

(ii) AVAILABILITY.—Funds made available under clause (i) shall remain available until expended.

(13) PUBLIC INFORMATION PROGRAM.—

(A) IN GENERAL.—The Administrator, acting through the Program Office and in coordination with States, Indian tribes, local governments, and other entities, may carry out a public information program to provide information relating to the remediation of contaminated sediment to the public in areas of concern that are located wholly or partially in the United States.

(B) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this paragraph $1,000,000 for each of fiscal years 2004 through 2008.

(d) GREAT LAKES RESEARCH.—

(1) ESTABLISHMENT OF RESEARCH OFFICE.—There is established within the National Oceanic and Atmospheric Administration the Great Lakes Research Office.

(2) IDENTIFICATION OF ISSUES.—The Research Office shall identify issues relating to the Great Lakes resources on which research is needed. The Research Office shall submit a report to Congress on such issues before the end of each fiscal year which shall identify any changes in the Great Lakes system with respect to such issues.

(3) INVENTORY.—The Research Office shall identify and inventory, Federal, State, university, and tribal environmental research programs (and, to the extent feasible, those of private organizations and other nations) relating to the Great Lakes system, and shall update that inventory every four years.

(4) RESEARCH EXCHANGE.—The Research Office shall establish a Great Lakes research exchange for the purpose of facilitating the rapid identification, acquisition, retrieval, dissemination, and use of information concerning research projects which are ongoing or completed and which affect the Great Lakes system.

(5) RESEARCH PROGRAM.—The Research Office shall develop, in cooperation with the Coordination Office, a comprehensive environmental research program and data base for the Great Lakes system. The data base shall include, but not be limited to, data relating to water quality, fisheries, and biota.

(6) MONITORING.—The Research Office shall conduct, through the Great Lakes Environmental Research Laboratory, the National Sea Grant College program, other Federal laboratories, and the private sector, appropriate research and monitoring activities which address priority issues and current needs relating to the Great Lakes.

(7) LOCATION.—The Research Office shall be located in a Great Lakes State.

(e) RESEARCH AND MANAGEMENT COORDINATION.—

(1) JOINT PLAN.—Before October 1 of each year, the Program Office and the Research Office shall prepare a joint research plan for the fiscal year which begins in the following calendar year.

(2) CONTENTS OF PLAN.—Each plan prepared under paragraph (1) shall—

(A) identify all proposed research dedicated to activities conducted under the Great Lakes Water Quality Agreement of 1978;

(B) include the Agency's assessment of priorities for research needed to fulfill the terms of such Agreement; and

(C) identify all proposed research that may be used to develop a comprehensive environmental data base for the Great Lakes system and establish priorities for development of such data base.

(3) HEALTH RESEARCH REPORT.—(A) Not later than September 30, 1994, the Program Office, in consultation with the Research Office, the Agency for Toxic Substances and Disease Registry, and Great Lakes States shall submit to the Congress a report assessing the adverse effects of water pollutants in the Great Lakes System on the health of persons in Great Lakes States and the health of fish, shellfish, and wildlife in the Great Lakes System. In conducting research in support of this report, the Administrator may, where appropriate, provide for research to be conducted under cooperative agreements with Great Lakes States.

(B) There is authorized to be appropriated to the Administrator to carry out this section not to exceed $3,000,000 for each of fiscal years 1992, 1993, and 1994.

(f) INTERAGENCY COOPERATION.—The head of each department, agency, or other instrumentality of the Federal Government which is engaged in, is concerned with, or has authority over programs relating to research, monitoring, and planning to maintain, enhance, preserve, or rehabilitate the environmental quality and natural resources of the Great Lakes, including the Chief of Engineers of the Army, the Chief of the Soil Conservation Service, the Commandant of the Coast Guard, the Director of the Fish and Wildlife Service, and the Administrator of the National Oceanic and Atmospheric Administration, shall submit an annual report to the Administrator with respect to the activities of that agency or office affecting compliance with the Great Lakes Water Quality Agreement of 1978.

(g) RELATIONSHIP TO EXISTING FEDERAL AND STATE LAWS AND INTERNATIONAL TREATIES.—Nothing in this section shall be construed—

(1) to affect the jurisdiction, powers, or prerogatives of any department, agency, or officer of the Federal Government or of any State government, or of any tribe, nor any powers, jurisdiction, or prerogatives of any international body created by treaty with authority relating to the Great Lakes; or

(2) to affect any other Federal or State authority that is being used or may be used to facilitate the cleanup and protection of the Great Lakes.

(h) AUTHORIZATIONS OF GREAT LAKES APPROPRIATIONS.—There are authorized to be appropriated to the Administrator to carry out this section not to exceed—

(1) $11,000,000 per fiscal year for the fiscal years 1987, 1988, 1989, and 1990, and $25,000,000 for fiscal year 1991;

(2) such sums as are necessary for each of fiscal years 1992 through 2003; and

(3) $25,000,000 for each of fiscal years 2004 through 2008.

(33 U.S.C. 1268)

SEC. 119. LONG ISLAND SOUND.—(a) The Administrator shall continue the Management Conference of the Long Island Sound Study (hereinafter referred to as the "Conference") as established pursuant to section 320 of this Act, and shall establish an office (hereinafter referred to as the "Office") to be located on or near Long Island Sound.

(b) ADMINISTRATION AND STAFFING OF OFFICE.—The Office shall be headed by a Director, who shall be detailed by the Administrator, following consultation with the Administrators of EPA regions I and II, from among the employees of the Agency who are in civil service. The Administrator shall delegate to the Director such authority and detail such additional staff as may be necessary to carry out the duties of the Director under this section.

(c) DUTIES OF THE OFFICE.—The Office shall assist the Management Conference of the Long Island Sound Study in carrying out its goals. Specifically, the Office shall—

(1) assist and support the implementation of the Comprehensive Conservation and Management Plan for Long Island Sound developed pursuant to section 320 of this Act, including efforts to establish, within the process for granting watershed general permits, a system for promoting innovative methodologies and technologies that are cost-effective and consistent with the goals of the Plan;

(2) conduct or commission studies deemed necessary for strengthened implementation of the Comprehensive Conservation and Management Plan including, but not limited to—

(A) population growth and the adequacy of wastewater treatment facilities,

(B) the use of biological methods for nutrient removal in sewage treatment plants,

(C) contaminated sediments, and dredging activities,

(D) nonpoint source pollution abatement and land use activities in the Long Island Sound watershed,

(E) wetland protection and restoration,

(F) atmospheric deposition of acidic and other pollutants into Long Island Sound,

(G) water quality requirements to sustain fish, shellfish, and wildlife populations, and the use of indicator species to assess environmental quality,

(H) State water quality programs, for their adequacy pursuant to implementation of the Comprehensive Conservation and Management Plan, and

(I) options for long-term financing of wastewater treatment projects and water pollution control programs.

(3) coordinate the grant, research and planning programs authorized under this section;

(4) coordinate activities and implementation responsibilities with other Federal agencies which have jurisdiction over Long Island Sound and with national and regional marine monitoring and research programs established pursuant to the Marine Protection, Research, and Sanctuaries Act;

(5) provide administrative and technical support to the conference;

(6) collect and make available to the public publications, and other forms of information the conference determines to be appropriate, relating to the environmental quality of Long Island Sound;

(7) not more than two years after the date of the issuance of the final Comprehensive Conservation and Management Plan for Long Island Sound under section 320 of this Act, and biennially thereafter, issue a report to the Congress which—

(A) summarizes the progress made by the States in implementing the Comprehensive Conservation and Management Plan;

(B) summarizes any modifications to the Comprehensive Conservation and Management Plan in the twelve-month period immediately preceding such report; and

(C) incorporates specific recommendations concerning the implementation of the Comprehensive Conservation and Management Plan; and

(8) convene conferences and meetings for legislators from State governments and political subdivisions thereof for the purpose of making recommendations for coordinating legislative efforts to facilitate the environmental restoration of Long Island Sound and the implementation of the Comprehensive Conservation and Management Plan.

(d) GRANTS.—(1) The Administrator is authorized to make grants for projects and studies which will help implement the Long Island Sound Comprehensive Conservation and Management Plan. Special emphasis shall be given to implementation, research and planning, enforcement, and citizen involvement and education.

(2) State, interstate, and regional water pollution control agencies, and other public or nonprofit private agencies, institutions, and organizations held to be eligible for grants pursuant to this subsection.

(3) Citizen involvement and citizen education grants under this subsection shall not exceed 95 per centum of the costs of such work. All other grants under this subsection shall not exceed 50 per centum of the research, studies, or work. All grants shall be made on the condition that the non-Federal share of such costs are provided from non-Federal sources.

(e) ASSISTANCE TO DISTRESSED COMMUNITIES.—

(1) ELIGIBLE COMMUNITIES.—For the purposes of this subsection, a distressed community is any community that meets affordability criteria established by the State in which the community is located, if such criteria are developed after public review and comment.

(2) PRIORITY.—In making assistance available under this section for the upgrading of wastewater treatment facilities, the Administrator may give priority to a distressed community.

(f) AUTHORIZATIONS.—(1) There is authorized to be appropriated to the Administrator for the implementation of this section, other than subsection (d), such sums as may be necessary for each of the fiscal years 2001 through 2005.

(2) There is authorized to be appropriated to the Administrator for the implementation of subsection (d) not to exceed $40,000,000 for each of fiscal years 2001 through 2005.

(33 U.S.C. 1269)

SEC. 120. LAKE CHAMPLAIN BASIN PROGRAM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established a Lake Champlain Management Conference to develop a comprehensive pollution prevention, control, and restoration plan for Lake Champlain. The Administrator shall convene the management conference within ninety days of the date of enactment of this section.

(2) IMPLEMENTATION.—The Administrator—

(A) may provide support to the State of Vermont, the State of New York, and the New England Interstate Water Pollution Control Commission for the implementation of the Lake Champlain Basin Program; and

(B) shall coordinate actions of the Environmental Protection Agency under subparagraph (A) with the actions of other appropriate Federal agencies.

(b) MEMBERSHIP.—The Members of the Management Conference shall be comprised of—

(1) the Governors of the States of Vermont and New York;

(2) each interested Federal agency, not to exceed a total of five members;

(3) the Vermont and New York Chairpersons of the Vermont, New York, Quebec Citizens Advisory Committee for the Environmental Management of Lake Champlain;

(4) four representatives of the State legislature of Vermont;

(5) four representatives of the State legislature of New York;

(6) six persons representing local governments having jurisdiction over any land or water within the Lake Champlain basin, as determined appropriate by the Governors; and

(7) eight persons representing affected industries, nongovernmental organizations, public and private educational institutions, and the general public, as determined appropriate by the trigovernmental Citizens Advisory Committee for the Environmental Management of Lake Champlain, but not to be current members of the Citizens Advisory Committee.

(c) TECHNICAL ADVISORY COMMITTEE.—(1) The Management Conference shall, not later than one hundred and twenty days after the date of enactment of this section, appoint a Technical Advisory Committee.

(2) Such Technical Advisory Committee shall consist of officials of: appropriate departments and agencies of the Federal Govern-

ment; the State governments of New York and Vermont; and governments of political subdivisions of such States; and public and private research institutions.

(d) RESEARCH PROGRAM.—The Management Conference shall establish a multi-disciplinary environmental research program for Lake Champlain. Such research program shall be planned and conducted jointly with the Lake Champlain Research Consortium.

(e) POLLUTION PREVENTION, CONTROL, AND RESTORATION PLAN.—(1) Not later than three years after the date of the enactment of this section, the Management Conference shall publish a pollution prevention, control, and restoration plan for Lake Champlain.

(2) The Plan developed pursuant to this section shall—

(A) identify corrective actions and compliance schedules addressing point and nonpoint sources of pollution necessary to restore and maintain the chemical, physical, and biological integrity of water quality, a balanced, indigenous population of shellfish, fish and wildlife, recreational, and economic activities in and on the lake;

(B) incorporate environmental management concepts and programs established in State and Federal plans and programs in effect at the time of the development of such plan;

(C) clarify the duties of Federal and State agencies in pollution prevention and control activities, and to the extent allowable by law, suggest a timetable for adoption by the appropriate Federal and State agencies to accomplish such duties within a reasonable period of time;

(D) describe the methods and schedules for funding of programs, activities, and projects identified in the Plan, including the use of Federal funds and other sources of funds;

(E) include a strategy for pollution prevention and control that includes the promotion of pollution prevention and management practices to reduce the amount of pollution generated in the Lake Champlain basin; and

(F) be reviewed and revised, as necessary, at least once every 5 years, in consultation with the Administrator and other appropriate Federal agencies.

(3) The Administrator, in cooperation with the Management Conference, shall provide for public review and comment on the draft Plan. At a minimum, the Management Conference shall conduct one public meeting to hear comments on the draft plan in the State of New York and one such meeting in the State of Vermont.

(4) Not less than one hundred and twenty days after the publication of the Plan required pursuant to this section, the Administrator shall approve such plan if the plan meets the requirements of this section and the Governors of the States of New York and Vermont concur.

(5) Upon approval of the plan, such plan shall be deemed to be an approved management program for the purposes of section 319(h) of this Act and such plan shall be deemed to be an approved comprehensive conservation and management plan pursuant to section 320 of this Act.

(f) GRANT ASSISTANCE.—(1) The Administrator may, in consultation with participants in the Lake Champlain Basin Program,

make grants to State, interstate, and regional water pollution control agencies, and public or nonprofit agencies, institutions, and organizations.

(2) Grants under this subsection shall be made for assisting research, surveys, studies, and modeling and technical and supporting work necessary for the development and implementation of the Plan.

(3) The amount of grants to any person under this subsection for a fiscal year shall not exceed 75 per centum of the costs of such research, survey, study and work and shall be made available on the condition that non-Federal share of such costs are provided from non-Federal sources.

(4) The Administrator may establish such requirements for the administration of grants as he determines to be appropriate.

(g) DEFINITIONS.—In this section:

(1) LAKE CHAMPLAIN BASIN PROGRAM.—The term "Lake Champlain Basin Program" means the coordinated efforts among the Federal Government, State governments, and local governments to implement the Plan.

(2) LAKE CHAMPLAIN DRAINAGE BASIN.—The term "Lake Champlain drainage basin" means all or part of Clinton, Franklin, Warren, Essex, and Washington counties in the State of New York and all or part of Franklin, Hamilton, Grand Isle, Chittenden, Addison, Rutland, Bennington, Lamoille, Orange, Washington, Orleans, and Caledonia counties in Vermont, that contain all of the streams, rivers, lakes, and other bodies of water, including wetlands, that drain into Lake Champlain.

(3) PLAN.—The term "Plan" means the plan developed under subsection (e).

(h) NO EFFECT ON CERTAIN AUTHORITY.—Nothing in this section—

(1) affects the jurisdiction or powers of—

(A) any department or agency of the Federal Government or any State government; or

(B) any international organization or entity related to Lake Champlain created by treaty or memorandum to which the United States is a signatory;

(2) provides new regulatory authority for the Environmental Protection Agency; or

(3) affects section 304 of the Great Lakes Critical Programs Act of 1990 (Public Law 101–596; 33 U.S.C. 1270 note).

(i) AUTHORIZATION.—There are authorized to be appropriated to the Environmental Protection Agency to carry out this section—

(1) $2,000,000 for each of fiscal years 1991, 1992, 1993, 1994, and 1995;

(2) such sums as are necessary for each of fiscal years 1996 through 2003; and

(3) $11,000,000 for each of fiscal years 2004 through 2008.

(33 U.S.C. 1270)

SEC. 121. LAKE PONTCHARTRAIN BASIN.

(a) ESTABLISHMENT OF RESTORATION PROGRAM.—The Administrator shall establish within the Environmental Protection Agency the Lake Pontchartrain Basin Restoration Program.

(b) PURPOSE.—The purpose of the program shall be to restore the ecological health of the Basin by developing and funding restoration projects and related scientific and public education projects.

(c) DUTIES.—In carrying out the program, the Administrator shall—

(1) provide administrative and technical assistance to a management conference convened for the Basin under section 320;

(2) assist and support the activities of the management conference, including the implementation of recommendations of the management conference;

(3) support environmental monitoring of the Basin and research to provide necessary technical and scientific information;

(4) develop a comprehensive research plan to address the technical needs of the program;

(5) coordinate the grant, research, and planning programs authorized under this section; and

(6) collect and make available to the public publications, and other forms of information the management conference determines to be appropriate, relating to the environmental quality of the Basin.

(d) GRANTS.—The Administrator may make grants—

(1) for restoration projects and studies recommended by a management conference convened for the Basin under section 320; and

(2) for public education projects recommended by the management conference.

(e) DEFINITIONS.—In this section, the following definitions apply:

(1) BASIN.—The term "Basin" means the Lake Pontchartrain Basin, a 5,000 square mile watershed encompassing 16 parishes in the State of Louisiana and 4 counties in the State of Mississippi.

(2) PROGRAM.—The term "program" means the Lake Pontchartrain Basin Restoration Program established under subsection (a).

(f) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There is authorized to be appropriated to carry out this section $20,000,000 for each of fiscal years 2001 through 2005. Such sums shall remain available until expended.

(2) PUBLIC EDUCATION PROJECTS.—Not more than 15 percent of the amount appropriated pursuant to paragraph (1) in a fiscal year may be expended on grants for public education projects under subsection (d)(2).

(33 U.S.C. 1273)

SEC. 121. WET WEATHER WATERSHED PILOT PROJECTS. [1]

(a) IN GENERAL.—The Administrator, in coordination with the States, may provide technical assistance and grants for treatment works to carry out pilot projects relating to the following areas of wet weather discharge control:

(1) WATERSHED MANAGEMENT OF WET WEATHER DISCHARGES.—The management of municipal combined sewer overflows, sanitary sewer overflows, and stormwater discharges, on an integrated watershed or subwatershed basis for the purpose of demonstrating the effectiveness of a unified wet weather approach.

(2) STORMWATER BEST MANAGEMENT PRACTICES.—The control of pollutants from municipal separate storm sewer systems for the purpose of demonstrating and determining controls that are cost-effective and that use innovative technologies in reducing such pollutants from stormwater discharges.

(b) ADMINISTRATION.—The Administrator, in coordination with the States, shall provide municipalities participating in a pilot project under this section the ability to engage in innovative practices, including the ability to unify separate wet weather control efforts under a single permit.

(c) FUNDING.—

(1) IN GENERAL.—There is authorized to be appropriated to carry out this section $10,000,000 for fiscal year 2002, $15,000,000 for fiscal year 2003, and $20,000,000 for fiscal year 2004. Such funds shall remain available until expended.

(2) STORMWATER.—The Administrator shall make available not less than 20 percent of amounts appropriated for a fiscal year pursuant to this subsection to carry out the purposes of subsection (a)(2).

(3) ADMINISTRATIVE EXPENSES.—The Administrator may retain not to exceed 4 percent of any amounts appropriated for a fiscal year pursuant to this subsection for the reasonable and necessary costs of administering this section.

(d) REPORT TO CONGRESS.—Not later than 5 years after the date of enactment of this section, the Administrator shall transmit to Congress a report on the results of the pilot projects conducted under this section and their possible application nationwide.

(33 U.S.C. 1274)

TITLE II—GRANTS FOR CONSTRUCTION OF TREATMENT WORKS

PURPOSE

SEC. 201. (a) It is the purpose of this title to require and to assist the development and implementation of waste treatment management plans and practices which will achieve the goals of this Act.

(b) Waste treatment management plans and practices shall provide for the application of the best practicable waste treatment

[1] The second section 121 was added by section 112(b) of the Miscellaneous Appropriations Act, 2001 (114 Stat. 2763A–225), as enacted into law by section 1(a)(6) of Public Law 106–554 (114 Stat. 2763).

technology before any discharge into receiving waters, including reclaiming and recycling of water, and confined disposal of pollutants so they will not migrate to cause water or other environmental pollution and shall provide for consideration of advanced waste treatment techniques.

(c) To the extent practicable, waste treatment management shall be on an areawide basis and provide control or treatment of all point and nonpoint sources of pollution, including in place or accumulated pollution sources.

(d) The Administrator shall encourage waste treatment management which results in the construction of revenue producing facilities providing for—

(1) the recycling of potential sewage pollutants through the production of agriculture, silviculture, or aquaculture products, or any combination thereof;

(2) the confined and contained disposal of pollutants not recycled;

(3) the reclamation of wastewater; and

(4) the ultimate disposal of sludge in a manner that will not result in environmental hazards.

(e) The Administrator shall encourage waste treatment management which results in integrating facilities for sewage treatment and recycling with facilities to treat, dispose of, or utilize other industrial and municipal wastes, including but not limited to solid waste and waste heat and thermal discharges. Such integrated facilities shall be designed and operated to produce revenues in excess of capital and operation and maintenance costs and such revenues shall be used by the designated regional management agency to aid in financing other environmental improvement programs.

(f) The Administrator shall encourage waste treatment management which combines "open space" and recreational considerations with such management.

(g)(1) The Administrator is authorized to make grants to any State, municipality, or intermunicipal or interstate agency for the construction of publicly owned treatment works. On and after October 1, 1984, grants under this title shall be made only for projects for secondary treatment or more stringent treatment, or any cost effective alternative thereto, new interceptors and appurtenances, and infiltration-in-flow correction. Notwithstanding the preceding sentences, the Administrator may make grants on and after October 1, 1984, for (A) any project within the definition set forth in section 212(2) of this Act, other than for a project referred to in the preceding sentence, and (B) any purpose for which a grant may be made under sections [1] 319 (h) and (i) of this Act (including any innovative and alternative approaches for the control of nonpoint sources of pollution), except that not more than 20 per centum (as determined by the Governor of the State) of the amount allotted to a State under section 205 of this Act for any fiscal year shall be obligated in such State under authority of this sentence.

(2) The Administrator shall not make grants from funds authorized for any fiscal year beginning after June 30, 1974, to any

[1] So in original. Probably should be "section".

State, municipality, or intermunicipal or interstate agency for the erection, building, acquisition, alteration, remodeling, improvement, or extension of treatment works unless the grant applicant has satisfactorily demonstrated to the Administrator that—

(A) alternative waste management techniques have been studied and evaluated and the works proposed for grant assistance will provide for the application of the best practicable waste treatment technology over the life of the works consistent with the purposes of this title; and

(B) as appropriate, the works proposed for grant assistance will take into account and allow to the extent practicable the application of technology at a later date which will provide for the reclaiming or recycling of water or otherwise eliminate the discharge of pollutants.

(3) The Administrator shall not approve any grant after July 1, 1973, for treatment works under this section unless the applicant shows to the satisfaction of the Administrator that each sewer collection system discharging into such treatment works is not subject to excessive infiltration.

(4) The Administrator is authorized to make grants to applicants for treatment works grants under this section for such sewer system evaluation studies as may be necessary to carry out the requirements of paragraph (3) of this subsection. Such grants shall be made in accordance with rules and regulations promulgated by the Administrator. Initial rules and regulations shall be promulgated under this paragraph not later than 120 days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972.

(5) The Administrator shall not make grants from funds authorized for any fiscal year beginning after September 30, 1978, to any State, municipality, or intermunicipal or interstate agency for the erection, building, acquisition, alteration, remodeling, improvement, or extension of treatment works unless the grant applicant has satisfactorily demonstrated to the Administrator that innovative and alternative wastewater treatment processes and techniques which provide for the reclaiming and reuse of water, otherwise eliminate the discharge of pollutants, and utilize recycling techniques, land treatment, new or improved methods of waste treatment management for municipal and industrial waste (discharged into municipal systems) and the confined disposal of pollutants, so that pollutants will not migrate to cause water or other environmental pollution, have been fully studied and evaluated by the applicant taking into account section 201(d) of this Act and taking into account and allowing to the extent practicable the more efficient use of energy and resources.

(6) The Administrator shall not make grants from funds authorized for any fiscal year beginning after September 30, 1978, to any State, municipality, or intermunicipal or interstate agency for the erection, building, acquisition, alteration, remodeling, improvement, or extension of treatment works unless the grant applicant has satisfactorily demonstrated to the Administrator that the applicant has analyzed the potential recreation and open space opportunities in the planning of the proposed treatment works.

(h) A grant may be made under this section to construct a privately owned treatment works serving one or more principal residences or small commercial establishments constructed prior to, and inhabited on the date of enactment of this subsection where the Administrator finds that—

(1) a public body otherwise eligible for a grant under subsection (g) of this section has applied on behalf of a number of such units and certified that public ownership of such works is not feasible;

(2) such public body has entered into an agreement with the Administrator which guarantees that such treatment works will be properly operated and maintained and will comply with all other requirements of section 204 of this Act and includes a system of charges to assure that each recipient of waste treatment services under such a grant will pay its proportionate share of the cost of operation and maintenance (including replacement); and

(3) the total cost and environmental impact of providing waste treatment services to such residences or commercial establishments will be less than the cost of providing a system of collection and central treatment of such wastes.

(i) The Administrator shall encourage waste treatment management methods, processes, and techniques which will reduce total energy requirements.

(j) The Administrator is authorized to make a grant for any treatment works utilizing processes and techniques meeting the guidelines promulgated under section 304(d)(3) of this Act, if the Administrator determines it is in the public interest and if in the cost effectiveness study made of the construction grant application for the purpose of evaluating alternative treatment works, the life cycle cost of the treatment works for which the grant is to be made does not exceed the life cycle cost of the most effective alternative by more than 15 per centum.

(k) No grant made after November 15, 1981, for a publicly owned treatment works, other than for facility planning and the preparation of construction plans and specifications, shall be used to treat, store, or convey the flow of any industrial user into such treatment works in excess of a flow per day equivalent to fifty thousand gallons per day of sanitary waste. This subsection shall not apply to any project proposed by a grantee which is carrying out an approved project to prepare construction plans and specifications for a facility to treat wastewater, which received its grant approval before May 15, 1980. This subsection shall not be in effect after November 15, 1981.

(l)(1) After the date of enactment of this subsection, Federal grants shall not be made for the purpose of providing assistance solely for facility plans, or plans, specifications, and estimates for any proposed project for the construction of treatment works. In the event that the proposed project receives a grant under this section for construction, the Administrator shall make an allowance in such grant for non-Federal funds expended during the facility planning and advanced engineering and design phase at the prevailing Federal share under section 202(a) of this Act, based on the per-

centage of total project costs which the Administrator determines is the general experience for such projects.

(2)(A) Each State shall use a portion of the funds allotted to such State each fiscal year, but not to exceed 10 per centum of such funds, to advance to potential grant applicants under this title the costs of facility planning or the preparation of plans, specifications, and estimates.

(B) Such an advance shall be limited to the allowance for such costs which the Administrator establishes under paragraph (1) of this subsection, and shall be provided only to a potential grant applicant which is a small community and which in the judgment of the State would otherwise be unable to prepare a request for a grant for construction costs under this section.

(C) In the event a grant for construction costs is made under this section for a project for which an advance has been made under this paragraph, the Administrator shall reduce the amount of such grant by the allowance established under paragraph (1) of this subsection. In the event no such grant is made, the State is authorized to seek repayment of such advance on such terms and conditions as it may determine.

(m)(1) Notwithstanding any other provisions of this title, the Administrator is authorized to make a grant from any funds otherwise allotted to the State of California under section 205 of this Act to the project (and in the amount) specified in Order WQG 81–1 of the California State Water Resources Control Board.

(2) Notwithstanding any other provision of this Act, the Administrator shall make a grant from any funds otherwise allotted to the State of California to the city of Eureka, California, in connection with project numbered C–06–2772, for the purchase of one hundred and thirty-nine acres of property as environmental mitigation for siting of the proposed treatment plant.

(3) Notwithstanding any other provision of this Act, the Administrator shall make a grant from any funds otherwise allotted to the State of California to the city of San Diego, California, in connection with that city's aquaculture sewage process (total resources recovery system) as an innovative and alternative waste treatment process.

(n)(1) On and after October 1, 1984, upon the request of the Governor of an affected State, the Administrator is authorized to use funds available to such State under section 205 to address water quality problems due to the impacts of discharges from combined storm water and sanitary sewer overflows, which are not otherwise eligible under this subsection, where correction of such discharges is a major priority for such State.

(2) Beginning fiscal year 1983, the Administrator shall have available $200,000,000 per fiscal year in addition to those funds authorized in section 207 of this Act to be utilized to address water quality problems of marine bays and estuaries subject to lower levels of water quality due to the impacts of discharges from combined storm water and sanitary sewer overflows from adjacent urban complexes, not otherwise eligible under this subsection. Such sums may be used as deemed appropriate by the Administrator as provided in paragraphs (1) and (2) of this subsection, upon the request

of and demonstration of water quality benefits by the Governor of an affected State.

(o) The Administrator shall encourage and assist applicants for grant assistance under this title to develop and file with the Administrator a capital financing plan which, at a minimum—

(1) projects the future requirements for waste treatment services within the applicant's jurisdiction for a period of no less than ten years;

(2) projects the nature, extent, timing, and costs of future expansion and reconstruction of treatment works which will be necessary to satisfy the applicant's projected future requirements for waste treatment services; and

(3) sets forth with specificity the manner in which the applicant intends to finance such future expansion and reconstruction.

(p) TIME LIMIT ON RESOLVING CERTAIN DISPUTES.—In any case in which a dispute arises with respect to the awarding of a contract for construction of treatment works by a grantee of funds under this title and a party to such dispute files an appeal with the Administrator under this title for resolution of such dispute, the Administrator shall make a final decision on such appeal within 90 days of the filing of such appeal.

(33 U.S.C. 1281)

FEDERAL SHARE

SEC. 202. (a)(1) The amount of any grant for treatment works made under this Act from funds authorized for any fiscal year beginning after June 30, 1971, and ending before October 1, 1984, shall be 75 per centum of the cost of construction thereof (as approved by the Administrator), and for any fiscal year beginning on or after October 1, 1984, shall be 55 per centum of the cost of construction thereof (as approved by the Administrator), unless modified to a lower percentage rate uniform throughout a State by the Governor of that State with the concurrence of the Administrator. Within ninety days after the enactment of this sentence the Administrator, shall issue guidelines for concurrence in any such modification, which shall provide for the consideration of the unobligated balance of sums allocated to the State under section 205 of this Act, the need for assistance under this title in such State, and the availability of State grant assistance to replace the Federal share reduced by such modification. The payment of any such reduced Federal share shall not constitute an obligation on the part of the United States or a claim on the part of any State or grantee to reimbursement for the portion of the Federal share reduced in any such State. Any grant (other than for reimbursement) made prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 from any funds authorized for any fiscal year beginning after June 30, 1971, shall, upon the request of the applicant, be increased to the applicable percentage under this section. Notwithstanding the first sentence of this paragraph, in any case where a primary, secondary, or advanced waste treatment facility or its related interceptors or a project for infiltration-in-flow correction has received a grant for erection, building, acqui-

sition, alteration, remodeling, improvement, extension, or correction before October 1, 1984, all segments and phases of such facility, interceptors, and project for infiltration-in-flow correction shall be eligible for grants at 75 per centum of the cost of construction thereof for any grant made pursuant to a State obligation which obligation occurred before October 1, 1990. Notwithstanding the first sentence of this paragraph, in the case of a project for which an application for a grant under this title has been made to the Administrator before October 1, 1984, and which project is under judicial injunction on such date prohibiting its construction, such project shall be eligible for grants at 75 percent of the cost of construction thereof. Notwithstanding the first sentence of this paragraph, in the case of the Wyoming Valley Sanitary Authority project mandated by judicial order under a proceeding begun prior to October 1, 1984, and a project for wastewater treatment for Altoona, Pennsylvania, such projects shall be eligible for grants at 75 percent of the cost of construction thereof.

(2) The amount of any grant made after September 30, 1978, and before October 1, 1981, for any eligible treatment works or significant portion thereof utilizing innovative or alternative wastewater treatment processes and techniques referred to in section 201(g)(5) shall be 85 per centum of the cost of construction thereof, unless modified by the Governor of the State with the concurrence of the Administrator to a percentage rate no less than 15 per centum greater than the modified uniform percentage rate in which the Administrator has concurred pursuant to paragraph (1) of this subsection. The amount of any grant made after September 30, 1981, for any eligible treatment works or unit processes and techinques thereof utilizing innovative or alternative wastewater treatment processes and techniques referred to in section 201(g)(5) shall be a percentage of the cost of construction thereof equal to 20 per centum greater than the percentage in effect under paragraph (1) of this subsection for such works or unit processes and techniques, but in no event greater than 85 per centum of the cost of construction thereof. No grant shall be made under this paragraph for construction of a treatment works in any State unless the proportion of the State contribution to the non-Federal share of construction costs for all treatment works in such State receiving a grant under this paragraph is the same as or greater than the proportion of the State contribution (if any) to the non-Federal share of construction costs for all treatment works receiving grants in such State under paragraph (1) of this subsection.

(3) In addition to any grant made pursuant to paragraph (2) of this subsection, the Administrator is authorized to make a grant to fund all of the costs of the modification or replacement of any facilities constructed with a grant made pursuant to paragraph (2) if the Administrator finds that such facilities have not met design performance specifications unless such failure is attributable to negligence on the part of any person and if such failure has significantly increased capital or operating and maintenance expenditures. In addition, the Administrator is authorized to make a grant to fund all of the costs of the modification or replacement of biodisc equipment (rotating biological contractors) in any publicly owned treatment works if the Administrator finds that such equipment

has failed to meet design performance specifications, unless such failure is attributable to negligence on the part of any person, and if such failure has significantly increased capital or operating and maintenance expenditures.

(4) For the purposes of this section, the term "eligible treatment works" means those treatment works in each State which meet the requirements of section 201(g)(5) of this Act and which can be fully funded from funds available for such purpose in such State.

(b) The amount of the grant for any project approved by the Administrator after January 1, 1971, and before July 1, 1971, for the construction of treatment works, the actual erection, building or acquisition of which was not commenced prior to July 1, 1971, shall, upon the request of the applicant, be increased to the applicable percentage under subsection (a) of this section for grants for treatment works from funds for fiscal years beginning after June 30, 1971, with respect to the cost of such actual erection, building, or acquisition. Such increased amount shall be paid from any funds allocated to the State in which the treatment works is located without regard to the fiscal year for which such funds were authorized. Such increased amount shall be paid for such project only if—

(1) a sewage collection system that is a part of the same total waste treatment system as the treatment works for which such grant was approved is under construction or is to be constructed for use in conjunction with such treatment works, and if the cost of such sewage collection system exceeds the cost of such treatment works, and

(2) the State water pollution control agency or other appropriate State authority certifies that the quantity of available ground water will be insufficient, inadequate, or unsuitable for public use, including the ecological preservation and recreational use of surface water bodies, unless effluents from publicly-owned treatment works after adequate treatment are returned to the ground water consistent with acceptable technological standards.

(c) Notwithstanding any other provision of law, sums allotted to the Commonwealth of Puerto Rico under section 205 of this Act for fiscal year 1981 shall remain available for obligation for the fiscal year for which authorized and for the period of the next succeeding twenty-four months. Such sums and any unobligated funds available to Puerto Rico from allotments for fiscal years ending prior to October 1, 1981, shall be available for obligation by the Administrator of the Environmental Protection Agency only to fund the following systems: Aguadilla, Arecibo, Mayaguez, Carolina, and Camuy Hatillo. These funds may be used by the Commonwealth of Puerto Rico to fund the non-Federal share of the costs of such projects. To the extent that these funds are used to pay the non-Federal share, the Commonwealth of Puerto Rico shall repay to the Environmental Protection Agency such amounts on terms and conditions developed and approved by the Administrator in consultation with the Governor of the Commonwealth of Puerto Rico. Agreement on such terms and conditions including the payment of interest to be determined by the Secretary of the Treasury, shall be reached prior to the use of these funds for the Commonwealth's

non-Federal share. No Federal funds awarded under this provision shall be used to replace local governments funds previously expended on these projects.

(33 U.S.C. 1282)

PLANS, SPECIFICATIONS, ESTIMATES, AND PAYMENTS

SEC. 203. (a)(1) Each applicant for a grant shall submit to the Administrator for his approval, plans, specifications, and estimates for each proposed project for the construction of treatment works for which a grant is applied for under section 201(g)(1) from funds allotted to the State under section 205 and which otherwise meets the requirements of this Act. The Administrator shall act upon such plans, specifications, and estimates as soon as practicable after the same have been submitted, and his approval of any such plans, specifications, and estimates shall be deemed a contractual obligation of the United States for the payment of its proportional contribution to such project.

(2) AGREEMENT ON ELIGIBLE COSTS.—

(A) LIMITATION ON MODIFICATIONS.—Before taking final action on any plans, specifications, and estimates submitted under this subsection after the 60th day following the date of the enactment of the Water Quality Act of 1987, the Administrator shall enter into a written agreement with the applicant which establishes and specifies which items of the proposed project are eligible for Federal payments under this section. The Administrator may not later modify such eligibility determinations unless they are found to have been made in violation of applicable Federal statutes and regulations.

(B) LIMITATION ON EFFECT.—Eligibility determinations under this paragraph shall not preclude the Administrator from auditing a project pursuant to section 501 of this Act, or other authority, or from withholding or recovering Federal funds for costs which are found to be unreasonable, unsupported by adequate documentation, or otherwise unallowable under applicable Federal costs principles, or which are incurred on a project which fails to meet the design specifications or effluent limitations contained in the grant agreement and permit pursuant to section 402 of this Act for such project.

(3) In the case of a treatment works that has an estimated total cost of $8,000,000 of less (as determined by the Administrator), and the population of the applicant municipality is twenty-five thousand or less (according to the most recent United States census), upon completion of an approved facility plan, a single grant may be awarded for the combined Federal share of the cost of preparing construction plans and specifications, and the building and erection of the treatment works.

(b) The Administrator shall, from time to time as the work progresses, make payments to the recipient of a grant for costs of construction incurred on a project. These payments shall at no time exceed the Federal share of the cost of construction incurred to the date of the voucher covering such payment plus the Federal share

of the value of the materials which have been stockpiled in the vicinity of such construction in conformity to plans and specifications for the project.

(c) After completion of a project and approval of the final voucher by the Administrator, he shall pay out of the appropriate sums the unpaid balance of the Federal share payable on account of such project.

(d) Nothing in this Act shall be construed to require, or to authorize the Administrator to require, that grants under this Act for construction of treatment works be made only for projects which are operable units usable for sewage collection, transportation, storage, waste treatment, or for similar purposes without additional construction.

(e) At the request of a grantee under this title, the Administrator is authorized to provide technical and legal assistance in the administration and enforcement of any contract in connection with treatment works assisted under this title, and to intervene any civil action involving the enforcement of such a contract.

(f) DESIGN/BUILD PROJECTS.—

(1) AGREEMENT.—Consistent with State law, an applicant who proposes to construct waste water treatment works may enter into an agreement with the Administrator under this subsection providing for the preparation of construction plans and specifications and the erection of such treatment works, in lieu of proceeding under the other provisions of this section.

(2) LIMITATION ON PROJECTS.—Agreements under this subsection shall be limited to projects under an approved facility plan which projects are—

(A) treatment works that have an estimated total cost of $8,000,000 or less; and

(B) any of the following types of waste water treatment systems: aerated lagoons, trickling filters, stabilization ponds, land application systems, sand filters, and subsurface disposal systems.

(3) REQUIRED TERMS.—An agreement entered into under this subsection shall—

(A) set forth an amount agreed to as the maximum Federal contribution to the project, based upon a competitively bid document of basic design data and applicable standard construction specifications and a determination of the federally eligible costs of the project at the applicable Federal share under section 202 of this Act;

(B) set forth dates for the start and completion of construction of the treatment works by the applicant and a schedule of payments of the Federal contribution to the project;

(C) contain assurances by the applicant that (i) engineering and management assistance will be provided to manage the project; (ii) the proposed treatment works will be an operable unit and will meet all the requirements of this title; and (iii) not later than 1 year after the date specified as the date of completion of construction of the treatment works, the treatment works will be operating so as

to meet the requirements of any applicable permit for such treatment works under section 402 of this Act;

(D) require the applicant to obtain a bond from the contractor in an amount determined necessary by the Administrator to protect the Federal interest in the project; and

(E) contain such other terms and conditions as are necessary to assure compliance with this title (except as provided in paragraph (4) of this subsection).

(4) LIMITATION ON APPLICATION.—Subsections (a), (b), and (c) of this section shall not apply to grants made pursuant to this subsection.

(5) RESERVATION TO ASSURE COMPLIANCE.—The Administrator shall reserve a portion of the grant to assure contract compliance until final project approval as defined by the Administrator. If the amount agreed to under paragraph (3)(A) exceeds the cost of designing and constructing the treatment works, the Administrator shall reallot the amount of the excess to the State in which such treatment works are located for the fiscal year in which such audit is completed.

(6) LIMITATION ON OBLIGATIONS.—The Administrator shall not obligate more than 20 percent of the amount allotted to a State for a fiscal year under section 205 of this Act for grants pursuant to this subsection.

(7) ALLOWANCE.—The Administrator shall determine an allowance for facilities planning for projects constructed under this subsection in accordance with section 201(l).

(8) LIMITATION ON FEDERAL CONTRIBUTIONS.—In no event shall the Federal contribution for the cost of preparing construction plans and specifications and the building and erection of treatment works pursuant to this subsection exceed the amount agreed upon under paragraph (3).

(9) RECOVERY ACTION.—In any case in which the recipient of a grant made pursuant to this subsection does not comply with the terms of the agreement entered into under paragraph (3), the Administrator is authorized to take such action as may be necessary to recover the amount of the Federal contribution to the project.

(10) PREVENTION OF DOUBLE BENEFITS.—A recipient of a grant made pursuant to this subsection shall not be eligible for any other grants under this title for the same project.

(33 U.S.C. 1283)

LIMITATIONS AND CONDITIONS

SEC. 204. (a) Before approving grants for any project for any treatment works under section 201(g)(1) the Administrator shall determine—

(1) that any required areawide waste treatment management plan under section 208 of this Act (A) is being implemented for such area and the proposed treatment works are included in such plan, or (B) is being developed for such area and reasonable progress is being made toward its implementation

and the proposed treatment works will be included in such plan;

(2) that (A) the State in which the project is to be located (i) is implementing any required plan under section 303(e) of this Act and the proposed treatment works are in conformity with such plan, or (ii) is developing such a plan and the proposed treatment works will be in conformity with such plan, and (B) such State is in compliance with section 305(b) of this Act;

(3) that such works have been certified by the appropriate State water pollution control agency as entitled to priority over such other works in the State in accordance with any applicable State plan under section 303(e) of this Act, except that any priority list developed pursuant to section 303(e)(3)(H) may be modified by such State in accordance with regulations promulgated by the Administrator to give higher priority for grants for the Federal share of the cost of preparing construction drawings and specifications for any treatment works utilizing processes and techniques meeting the guidelines promulgated under section 304(d)(3) of this Act for grants for the combined Federal share of the cost of preparing construction drawings and specifications and the building and erection of any treatment works meeting the requirements of the next to the last sentence of section 203(a) of this Act which utilizes processes and techniques meeting the guidelines promulgated under section 304(d)(3) of this Act.[1]

(4) that the applicant proposing to construct such works agrees to pay the non-Federal costs of such works and has made adequate provisions satisfactory to the Administrator for assuring proper and efficient operation, including the employment of trained management and operations personnel, and the maintenance of such works in accordance with a plan of operation approved by the state water pollution control agency or, as appropriate, the interstate agency, after construction thereof;

(5) that the size and capacity of such works relate directly to the needs to be served by such works, including sufficient reserve capacity. The amount of reserve capacity provided shall be approved by the Administrator on the basis of a comparison of the cost of constructing such reserves as a part of the works to be funded and the anticipated cost of providing expanded capacity at a date when such capacity will be required, after taking into account, in accordance with regulations promulgated by the Administrator, efforts to reduce total flow of sewage and unnecessary water consumption. The amount of reserve capacity eligible for a grant under this title shall be determined by the Administrator taking into account the projected population and associated commercial and industrial establishments within the jurisdiction of the applicant to be served by such treatment works as identified in an approved facilities plan, an areawide plan under section 208, or an applicable municipal master plan of development. For the purpose of this paragraph,

[1] So in law. The period should be a semicolon.

section 208, and any such plan, projected population shall be determined on the basis of the latest information available from the United States Department of Commerce or from the States as the Administrator, by regulation, determines appropriate. Beginning October 1, 1984, no grants shall be made under this title to construct that portion of any treatment works providing reserve capacity in excess of existing needs (including existing needs of residential, commercial, industrial, and other users) on the date of approval of a grant for the erection, building, acquisition, alteration, remodeling, improvement, or extension of a project for secondary treatment or more stringent treatment or new interceptors and appurtenances, except that in no event shall reserve capacity of a facility and its related interceptors to which this subsection applies be in excess of existing needs on October 1, 1990. In any case in which an applicant proposes to provide reserve capacity greater than that eligible for Federal financial assistance under this title, the incremental costs of the additional reserve capacity shall be paid by the applicant;

(6) that no specification for bids in connection with such works shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing or to provide for necessary interchangeability of parts and equipment. When in the judgment of the grantee, it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a "brand name or equal" description may be used as a means to define the performance or other salient requirements of a procurement, and in doing so the grantee need not establish the existence of any source other than the brand or source so named.

(b)(1) Notwithstanding any other provision of this title, the Administrator shall not approve any grant for any treatment works under section 201(g)(1) after March 1, 1973, unless he shall first have determined that the applicant (A) has adopted or will adopt a system of charges to assure that each recipient of waste treatment services within the applicant's jurisdiction, as determined by the Administrator, will pay its proportionate share (except as otherwise provided in this paragraph) of the costs of operation and maintenance (including replacement) of any waste treatment services provided by the applicant; and (B) has legal, institutional, managerial, and financial capability to insure adequate construction, operation, and maintenance of treatment works throughout the applicant's jurisdiction, as determined by the Administrator. In any case where an applicant which, as of the date of enactment of this sentence, uses a system of dedication ad valorem taxes and the Administrator determines that the applicant has a system of charges which results in the distribution of operation and maintenance costs for treatment works within the applicant's jurisdiction, to each user class, in proportion to the contribution to the total cost of operation and maintenance of such works by each user class (taking into account total waste water loading of such works, the constituent elements of the waste, and other appropriate factors),

and such applicant is otherwise in compliance with clause (A) of this paragraph with respect to each industrial user, then such dedication ad valorem tax system shall be deemed to be the user charge system meeting the requirements of clause (A) of this paragraph for the residential user class and such small non-residential user classes as defined by the Administrator. In defining small non-residential users, the Administrator shall consider the volume of wastes discharged into the treatment works by such users and the constituent elements of such wastes as well as such other factors as he deems appropriate. A system of user charges which imposes a lower charge for low-income residential users (as defined by the Administrator) shall be deemed to be a user charge system meeting the requirements of clause (A) of this paragraph if the Administrator determines that such system was adopted after public notice and hearing.

(2) The Administrator shall, within one hundred and eighty days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, and after consultation with appropriate State, interstate, municipal and intermunicipal agencies, issue guidelines applicable to payment of waste treatment costs by industrial and nonindustrial receipts of waste treatment services which shall establish (A) classes of users of such services, including categories of industrial users; (B) criteria against which to determine the adequacy of charges imposed on classes and categories of users reflecting all factors that influence the cost of waste treatment, including strength, volume, and delivery flow rate characteristics of waste; and (C) model systems and rates of user charges typical of various treatment works serving municipal-industrial communities.

(3) Approval by the Administrator of a grant to an interstate agency established by interstate compact for any treatment works shall satisfy any other requirement that such works be authorized by Act of Congress.

(4) A system of charges which meets the requirement of clause (A) of paragraph (1) of this subsection may be based on something other than metering the sewage or water supply flow of residential recipients of waste treatment services, including ad valorem taxes. If the system of charges is based on something other than metering the Administrator shall require (A) the applicant to establish a system by which the necessary funds will be available for the proper operation and maintenance of the treatment works; and (B) the applicant to establish a procedure under which the residential user will be notified as to that portion of his total payment which will be allocated to the costs of the waste treatment services.

(c) The next to the last sentence of paragraph (5) of subsection (a) of this section shall not apply in any case where a primary, secondary, or advanced waste treatment facility or its related interceptors has received a grant for erection, building, acquisition, alteration, remodeling, improvement, or extension before October 1, 1984, and all segments and phases of such facility and interceptors shall be funded based on a 20-year reserve capacity in the case of such facility and a 20-year reserve capacity in the case of such interceptors, except that, if a grant for such interceptors has been approved prior to the date of enactment of the Municipal Waste-

water Treatment Construction Grant Amendments of 1981, such interceptors shall be funded based on the approved reserve capacity not to exceed 40 years.

(d)(1) A grant for the construction of treatment works under this title shall provide that the engineer or engineering firm supervising construction or providing architect engineering services during construction shall continue its relationship to the grant applicant for a period of one year after the completion of construction and initial operation of such treatment works. During such period such engineer or engineering firm shall supervise operation of the treatment works, train operating personnel, and prepare curricula and training material for operating personnel. Costs associated with the implementation of this paragraph shall be eligible for Federal assistance in accordance with this title.

(2) On the date one year after the completion of construction and initial operation of such treatment works, the owner and operator of such treatment works shall certify to the Administrator whether or not such treatment works meet the design specifications and effluent limitations contained in the grant agreement and permit pursuant to section 402 of the Act for such works. If the owner and operator of such treatment works cannot certify that such treatment works meet such design specifications and effluent limitations, any failure to meet such design specifications and effluent limitations shall be corrected in a timely manner, to allow such affirmative certification, at other than Federal expense.

(3) Nothing in this section shall be construed to prohibit a grantee under this title from requiring more assurances, guarantees, or indemnity or other contractual requirements from any party to a contract pertaining to a project assisted under this title, than those provided under this subsection.

(33 U.S.C. 1284)

ALLOTMENT

SEC. 205. (a) Sums authorized to be appropriated pursuant to section 207 for each fiscal year beginning after June 30, 1972, before September 30, 1977, shall be allotted by the Administrator not later than the January 1st immediately preceding the beginning of the fiscal year for which authorized, except that the allotment for fiscal year 1973 shall be made not later than 30 days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. Such sums shall be allotted among the States by the Administrator in accordance with regulations promulgated by him, in the ratio that the estimated cost of constructing all needed publicly owned treatment works in each State bears to the estimated cost of construction of all needed publicly owned treatment works in all of the States. For the fiscal years ending June 30, 1973, and June 30, 1974, such ratio shall be determined on the basis of table III of House Public Works Committee Print No. 92–50. For the fiscal year ending June 30, 1975, such ratio shall be determined one-half on the basis of table I of House Public Works Committee Print Numbered 93–28 and one-half on the basis of table II of such print, except that no State shall receive an allotment less than that which it received for the fiscal year ending

June 30, 1972, as set forth in table III of such print. Allotments for fiscal years which begin after the fiscal year ending June 30, 1975 shall be made only in accordance with a revised cost estimate made and submitted to Congress in accordance with section 516 of this Act and only after such revised cost estimate shall have been approved by law specifically enacted hereafter.

(b)(1) Any sums allotted to a State under subsection (a) shall be available for obligation under section 203 on and after the date of such allotment. Such sums shall continue available for obligation in such State for a period of one year after the close of the fiscal year for which such sums are authorized. Any amounts so allotted which are not obligated by the end of such one-year period shall be immediately reallotted by the Administrator, in accordance with regulations promulgated by him, generally on the basis of the ratio used in making the last allotment of sums under this section. Such reallotted sums shall be added to the last allotments made to the States. Any sum made available to a State by reallotment under this subsection shall be in addition to any funds otherwise allotted to such State for grants under this title during any fiscal year.

(2) Any sums which have been obligated under section 203 and which are released by the payment of the final voucher for the project shall be immediately credited to the State to which such sums were last allotted. Such released sums shall be added to the amounts last allotted to such State and shall be immediately available for obligation in the same manner and to the same extent as such last allotment.

(c)(1) Sums authorized to be appropriated pursuant to section 207 for the fiscal years during the period beginning October 1, 1977, and ending September 30, 1981, shall be allotted for each such year by the Administrator not later than the tenth day which begins after the date of enactment of the Clean Water Act of 1977. Not-withstanding any other provision of law, sums authorized for the fiscal years ending September 30, 1978, September 30, 1979, September 30, 1980, and September 30, 1981, shall be allotted in accordance with table 3 of Committee Print Numbered 95–30 of the Committee on Public Works and Transportation of the House of Representatives.

(2) Sums authorized to be appropriated pursuant to section 207 for the fiscal years 1982, 1983, 1984, and 1985 shall be allotted for each such year by the Administrator not later than the tenth day which begins after the date of enactment of the Municipal Wastewater Treatment Construction Grant Amendments of 1981. Notwithstanding any other provision of law, sums authorized for the fiscal year ending September 30, 1982, shall be allotted in accordance with table 3 of Committee Print Numbered 95–30 of the Committee on Public Works and Transportation of the House of Representatives. Sums authorized for the fiscal years ending September 30, 1983, September 30, 1984, September 30, 1985, and September 30, 1986, shall be allotted in accordance with the following table:

	Fiscal years 1983 through 1985 [1]
States:	
Alabama	.011398
Alaska	.006101
Arizona	.006885
Arkansas	.006668
California	.072901
Colorado	.008154
Connecticut	.012487
Delaware	.004965
District of Columbia	.004965
Florida	.034407
Georgia	.017234
Hawaii	.007895
Idaho	.004965
Illinois	.046101
Indiana	.024566
Iowa	.013796
Kansas	.009201
Kentucky	.012973
Louisiana	.011205
Maine	.007788
Maryland	.024653
Massachusetts	.034608
Michigan	.043829
Minnesota	.018735
Mississippi	.009184
Missouri	.028257
Montana	.004965
Nebraska	.005214
Nevada	.004965
New Hampshire	.010186
New Jersey	.041654
New Mexico	.004965
New York	.113097
North Carolina	.018396
North Dakota	.004965
Ohio	.057383
Oklahoma	.008235
Oregon	.011515
Pennsylvania	.040377
Rhode Island	.006750
South Carolina	.010442
South Dakota	.004965
Tennessee	.014807
Texas	.038726
Utah	.005371
Vermont	.004965
Virginia	.020861
Washington	.017726
West Virginia	.015890
Wisconsin	.027557
Wyoming	.004965
Samoa	.000915
Guam	.000662
Northern Marianas	.000425
Puerto Rico	.013295
Pacific Trust Territories	.001305
Virgin Islands	.000531
United States totals	.999996

[1] So in original. Probably should be "1986".

(3) FISCAL YEARS 1987–1990.—Sums authorized to be appropriated pursuant to section 207 for the fiscal years 1987, 1988, 1989, and 1990 shall be allotted for each such year by the Administrator not later than the 10th day which begins after the

date of the enactment of this paragraph. Sums authorized for such fiscal years shall be allotted in accordance with the following table:

States:	
Alabama	.011309
Alaska	.006053
Arizona	.006831
Arkansas	.006616
California	.072333
Colorado	.008090
Connecticut	.012390
Delaware	.004965
District of Columbia	.004965
Florida	.034139
Georgia	.017100
Hawaii	.007833
Idaho	.004965
Illinois	.045741
Indiana	.024374
Iowa	.013688
Kansas	.009129
Kentucky	.012872
Louisiana	.011118
Maine	.007829
Maryland	.024461
Massachusetts	.034338
Michigan	.043487
Minnesota	.018589
Mississippi	.009112
Missouri	.028037
Montana	.004965
Nebraska	.005173
Nevada	.004965
New Hampshire	.010107
New Jersey	.041329
New Mexico	.004965
New York	.111632
North Carolina	.018253
North Dakota	.004965
Ohio	.056936
Oklahoma	.008171
Oregon	.011425
Pennsylvania	.040062
Rhode Island	.006791
South Carolina	.010361
South Dakota	.004965
Tennessee	.014692
Texas	.046226
Utah	.005329
Vermont	.004965
Virginia	.020698
Washington	.017588
West Virginia	.015766
Wisconsin	.027342
Wyoming	.004965
American Samoa	.000908
Guam	.000657
Northern Marianas	.000422
Puerto Rico	.013191
Pacific Trust Territories	.001295
Virgin Islands	.000527

(d) Sums allotted to the States for a fiscal year shall remain available for obligation for the fiscal year for which authorized and for the period of the next succeeding twelve months. The amount of any allotment not obligated by the end of such twenty-four-

month period shall be immediately reallotted by the Administrator on the basis of the same ratio as applicable to sums allotted for the then current fiscal year, except that none of the funds reallotted by the Administrator for fiscal year 1978 and for fiscal years thereafter shall be allotted to any State which failed to obligate any of the funds being reallotted. Any sum made available to a State by reallotment under this subsection shall be in addition to any funds otherwise allotted to such State for grants under this title during any fiscal year.

(e) For the fiscal years 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, and 1990, no State shall receive less than one-half of 1 per centum of the total allotment under subsection (c) of this section, except that in the case of Guam, Virgin Islands, American Samoa, and the Trust Territories not more than thirty-three one-hundredths of 1 per centum in the aggregate shall be allotted to all four for these jurisdictions. For the purpose of carrying out this subsection there are authorized to be appropriated, subject to such amounts as are provided in appropriation Acts, not to exceed $75,000,000 for each fiscal years 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, and 1990. If for any fiscal year the amount appropriated under authority of this subsection is less than the amount necessary to carry out this subsection, the amount each State receives under this subsection for such year shall be the same ratio for the amount such State would have received under this subsection in such year if the amount necessary to carry it out had been appropriated as the amount appropriated for such year bears to the amount necessary to carry out this subsection for such year.

(f) Notwithstanding any other provision of this section, sums made available between January 1, 1975, and March 1, 1975, by the Administrator for obligation shall be available for obligation until September 30, 1978.

(g)(1) The Administrator is authorized to reserve each fiscal year not to exceed 2 per centum of the amount authorized under section 207 of this title for purposes of the allotment made to each State under this section on or after October 1, 1977, except in the case of any fiscal year beginning on or after October 1, 1981, and ending before October 1, 1994, in which case the percentage authorized to be reserved shall not exceed 4 per centum.[1] or $400,000 whichever amount is the greater. Sums so reserved shall be available for making grants to such State under paragraph (2) of this subsection for the same period as sums are available from such allotment under subsection (d) of this section, and any such grant shall be available for obligation only during such period. Any grant made from sums reserved under this subsection which has not been obligated by the end of the period for which available shall be added to the amount last allotted to such State under this section and shall be immediately available for obligation in the same manner and to the same extent as such last allotment. Sums authorized to be reserved by this paragraph shall be in addition to and

[1] P.L. 97–117 added this phrase with a period at the end; probably should be a comma.

not in lieu of any other funds which may be authorized to carry out this subsection.

(2) The Administrator is authorized to grant to any State from amounts reserved to such State under this subsection, the reasonable costs of administering any aspects of sections 201, 203, 204, and 212 of this Act the responsibility for administration of which the Administrator has delegated to such State. The Administrator may increase such grant to take into account the reasonable costs of administering an approved program under section 402 or 404, administering a statewide waste treatment management planning program under section 208(b)(4), and managing waste treatment construction grants for small communities.

(h) The Administrator shall set aside from funds authorized for each fiscal year beginning on or after October 1, 1978, a total (as determined by the Governor of the State) of not less than 4 percent nor more than 7½ percent of the sums allotted to any State with a rural population of 25 per centum or more of the total population of such State, as determined by the Bureau of the Census. The Administrator may set aside no more than 7½ percent of the sums allotted to any other State for which the Governor requests such action. Such sums shall be available only for alternatives to conventional sewage treatment works for municipalities having a population of three thousand five hundred or less, or for the highly dispersed sections of larger municipalities, as defined by the Administrator.

(i) SET-ASIDE FOR INNOVATIVE AND ALTERNATIVE PROJECTS.—Not less than ½ of 1 percent of funds allotted to a State for each of the fiscal years ending September 30, 1979, through September 30, 1990, under subsection (c) of this section shall be expended only for increasing the Federal share of grants for construction of treatment works utilizing innovative processes and techniques pursuant to section 202(a)(2) of this Act. Including the expenditures authorized by the preceding sentence, a total of 2 percent of the funds allotted to a State for each of the fiscal years ending September 30, 1979, and September 30, 1980, and 3 percent of the funds allotted to a State for the fiscal year ending September 30, 1981, under subsection (c) of this section shall be expended only for increasing grants for construction of treatment works pursuant to section 202(a)(2) of this Act. Including the expenditures authorized by the first sentence of this subsection, a total (as determined by the Governor of the State) of not less than 4 percent nor more than 7½ percent of the funds allotted to such State under subsection (c) of this section for each of the fiscal years ending September 30, 1982, through September 30, 1990, shall be expended only for increasing the Federal share of grants for construction of treatment works pursuant to section 202(a)(2) of this Act.

(j)(1) The Administrator shall reserve each fiscal year not to exceed 1 per centum of the sums allotted and available for obligation to each State under this section for each fiscal year beginning on or after October 1, 1981, or $100,000, whichever amount is the greater.

(2) Such sums shall be used by the Administrator to make grants to the States to carry out water quality management planning, including, but not limited to—

(A) identifying most cost effective and locally acceptable facility and non-point measures to meet and maintain water quality standards;

(B) developing an implementation plan to obtain State and local financial and regulatory commitments to implement measures developed under subparagraph (A);

(C) determining the nature, extent, and causes of water quality problems in various areas of the State and interstate region, and reporting on these annually; and

(D) determining those publicly owned treatment works which should be constructed with assistance under this title, in which areas and in what sequence, taking into account the relative degree of effluent reduction attained, the relative contributions to water quality of other point or nonpoint sources, and the consideration of alternatives to such construction, and implementing section 303(e) of this Act.

(3) In carrying out planning with grants made under paragraph (2) of this subsection, a State shall develop jointly with local, regional, and interstate entities, a plan for carrying out the program and give funding priority to such entities and designated or undesignated public comprehensive planning organizations to carry out the purposes of this subsection. In giving such priority, the State shall allocate at least 40 percent of the amount granted to such State for a fiscal year under paragraph (2) of this subsection to regional public comprehensive planning organizations in such State and appropriate interstate organizations for the development and implementation of the plan described in this paragraph. In any fiscal year for which the Governor, in consultation with such organizations and with the approval of the Administrator, determines that allocation of at least 40 percent of such amount to such organizations will not result in significant participation by such organizations in water quality management planning and not significantly assist in development and implementation of the plan described in this paragraph and achieving the goals of this Act, the allocation to such organization may be less than 40 percent of such amount.

(4) All activities undertaken under this subsection shall be in coordination with other related provisions of this Act.

(5) NONPOINT SOURCE RESERVATION.—In addition to the sums reserved under paragraph (1), the Administrator shall reserve each fiscal year for each State 1 percent of the sums allotted and available for obligation to such State under this section for each fiscal year beginning on or after October 1, 1986, or $100,000, whichever is greater, for the purpose of carrying out section 319 of this Act. Sums so reserved in a State in any fiscal year for which such State does not request the use of such sums, to the extent such sums exceed $100,000, may be used by such State for other purposes under this title.

(k) The Administrator shall allot to the State of New York from sums authorized to be appropriated for the fiscal year ending September 30, 1982, an amount necessary to pay the entire cost of conveying sewage from the Convention Center of the City of New York to the Newtown sewage treatment plant, Brooklyn-Queens area, New York. The amount allotted under this subsection shall be in

addition to and not in lieu of any other amounts authorized to be allotted to such State under this Act.

(l) MARINE ESTUARY RESERVATION.—

(1) RESERVATION OF FUNDS.—

(A) GENERAL RULE.—Prior to making allotments among the States under subsection (c) of this section, the Administrator shall reserve funds from sums appropriated pursuant to section 207 for each fiscal year beginning after September 30, 1986.

(B) FISCAL YEARS 1987 AND 1988.—For each of fiscal years 1987 and 1988 the reservation shall be 1 percent of the sums appropriated pursuant to section 207 for such fiscal year.

(C) FISCAL YEARS 1989 AND 1990.—For each of fiscal years 1989 and 1990 the reservation shall be 1½ percent of the funds appropriated pursuant to section 207 for such fiscal year.

(2) USE OF FUNDS.—Of the sums reserved under this subsection, two-thirds shall be available to address water quality problems of marine bays and estuaries subject to lower levels of water quality due to the impacts of discharges from combined storm water and sanitary sewer overflows from adjacent urban complexes, and one-third shall be available for the implementation of section 320 of this Act, relating to the national estuary program.

(3) PERIOD OF AVAILABILITY.—Sums reserved under this subsection shall be subject to the period of availability for obligation established by subsection (d) of this section.

(4) TREATMENT OF CERTAIN BODY OF WATER.—For purposes of this section and section 201(n), Newark Bay, New Jersey, and the portion of the Passaic River up to Little Falls, in the vicinity of Beatties Dam, shall be treated as a marine bay and estuary.

(m) DISCRETIONARY DEPOSITS INTO STATE WATER POLLUTION CONTROL REVOLVING FUNDS.—

(1) FROM CONSTRUCTION GRANT ALLOTMENTS.—In addition to any amounts deposited in a water pollution control revolving fund established by a State under title VI, upon request of the Governor of such State, the Administrator shall make available to the State for deposit, as capitalization grants, in such fund in any fiscal year beginning after September 30, 1986, such portion of the amounts allotted to such State under this section for such fiscal year as the Governor considers appropriate; except that (A) in fiscal year 1987 such deposit may not exceed 50 percent of the amounts allotted to such State under this section for such fiscal year, and (B) in fiscal year 1988, such deposit may not exceed 75 percent of the amounts allotted to such State under this section for this [1] fiscal year.

(2) NOTICE REQUIREMENT.—The Governor of a State may make a request under paragraph (1) for a deposit into the water pollution control revolving fund of such State—

[1] So in original. Probably should be "such".

(A) in fiscal year 1987 only if no later than 90 days after the date of the enactment of this subsection, and

(B) in each fiscal year thereafter only if 90 days before the first day of such fiscal year,

the State provides notice of its intent to make such deposit.

(3) EXCEPTION.—Sums reserved under section 205(j) of this Act shall not be available for obligation under this subsection.

(33 U.S.C. 1285)

REIMBURSEMENT AND ADVANCED CONSTRUCTION

SEC. 206. (a) Any publicly owned treatment works in a State on which construction was initiated after June 30, 1966, but before July 1, 1973, which was approved by the appropriate State water pollution control agency and which the Administrator finds meets the requirements of section 8 of this Act in effect at the time of the initiation of construction shall be reimbursed a total amount equal to the difference between the amount of Federal financial assistance, if any, received under such section 8 for such project and 50 per centum of the cost of such project, or 55 per centum of the project cost where the Administrator also determines that such treatment works was constructed in conformity with a comprehensive metropolitan treatment plan as described in section 8(f) of the Federal Water Pollution Control Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. Nothing in this subsection shall result in any such works receiving Federal grants from all sources in excess of 80 per centum of the cost of such project.

(b) Any publicly owned treatment works constructed with or eligible for Federal financial assistance under this Act in a State between June 30, 1956, and June 30, 1966, which was approved by the State water pollution control agency and which the Administrator finds meets the requirements of section 8 of this Act prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 but which was constructed without assistance under such section 8 or which received such assistance in an amount less than 30 per centum of the cost of such project shall qualify for payments and reimbursement of State or local funds used for such project from sums allocated to such State under this section in an amount which shall not exceed the difference between the amount of such assistance, if any, received for such project and 30 per centum of the cost of such project.

(c) No publicly owned treatment works shall receive any payment or reimbursement under subsection (a) or (b) of this section unless an application for such assistance is filed with the Administrator within the one year period which begins on the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. Any application filed within such one year period may be revised from time to time, as may be necessary.

(d) The Administrator shall allocate to each qualified project under subsection (a) of this section each fiscal year for which funds are appropriated under subsection (e) of this section an amount which bears the same ratio to the unpaid balance of the reimbursement due such project as the total of such funds for such year

bears to the total unpaid balance of reimbursement due all such approved projects on the date of enactment of such appropriation. The Administrator shall allocate to each qualified project under subsection (b) of this section each fiscal year for which funds are appropriated under subsection (e) of this section an amount which bears the same ratio to the unpaid balance of the reimbursement due such project as the total of such funds for such year bears to the total unpaid balance of reimbursement due all such approved projects on the date of enactment of such appropriation.

(e) There is authorized to be appropriated to carry out subsection (a) of this section not to exceed $2,600,000,000 and, to carry out subsection (b) of this section, not to exceed $750,000,000. The authorizations contained in this subsection shall be the sole source of funds for reimbursements authorized by this section.

(f)(1) In any case where a substantial portion of the funds allotted to a State for the current fiscal year under this title have been obligated under section 201(g), or will be so obligated in a timely manner (as determined by the Administrator), and there is construction of any treatment work project without the aid of Federal funds and in accordance with all procedures and all requirements applicable to treatment works projects, except those procedures and requirements which limit construction of projects to those constructed with the aid of previously allotted Federal funds, the Administrator, upon his approval of an application made under this subsection therefore, is authorized to pay the Federal share of the cost of construction of such project when additional funds are allotted to the State under this title if prior to the construction of the project the Administrator approves plans, specifications, and estimates therefor in the same manner as other treatment works projects. The Administrator may not approve an application under this subsection unless an authorization is in effect for the first fiscal year in the period for which the application requests payment and such requested payment for that fiscal year does not exceed the State's expected allotment from such authorization. The Administrator shall not be required to make such requested payment for any fiscal year—

(A) to the extent that such payment would exceed such State's allotment of the amount appropriated for such fiscal year; and

(B) unless such payment is for a project which, on the basis of an approved funding priority list of such State, is eligible to receive such payment based on the allotment and appropriation for such fiscal year.

To the extent that sufficient funds are not appropriated to pay the full Federal share with respect to a project for which obligations under the provisions of this subsection have been made, the Administrator shall reduce the Federal share to such amount less than 75 per centum as such appropriations do provide.

(2) In determining the allotment for any fiscal year under this title, any treatment works project constructed in accordance with this section and without the aid of Federal funds shall not be considered completed until an application under the provisions of this subsection with respect to such project has been approved by the

Administrator, or the availability of funds from which this project is eligible for reimbursement has expired, whichever first occurs.

(33 U.S.C. 1286)

AUTHORIZATION

SEC. 207. There is authorized to be appropriated to carry out this title, other than sections 206(e), 208 and 209, for the fiscal year ending June 30, 1973, not to exceed $5,000,000,000, for the fiscal year ending June 30, 1974, not to exceed $6,000,000,000, and for the fiscal year ending June 30, 1975, not to exceed $7,000,000,000, and, subject to such amounts as are provided in appropriation Acts for the fiscal year ending September 30, 1977, $1,000,000,000 for the fiscal year ending September 30, 1978, $4,500,000,000 and for the fiscal years ending September 30, 1979, September 30, 1980, not to exceed $5,000,000,000; for the fiscal year ending September 30, 1981, not to exceed $2,548,837,000; and for the fiscal years ending September 30, 1982, September 30, 1983, September 30, 1984, and September 30, 1985, not to exceed $2,400,000,000 per fiscal year; and for each of the fiscal years ending September 30, 1986, September 30, 1987, and September 30, 1988, not to exceed $2,400,000,000; and for each of the fiscal years ending September 30, 1989, and September 30, 1990, not to exceed $1,200,000,000.

(33 U.S.C. 1287)

AREAWIDE WASTE TREATMENT MANAGEMENT

SEC. 208. (a) For the purpose of encouraging and facilitating the development and implementation of areawide waste treatment management plans—

(1) The Administrator, within ninety days after the date of enactment of this Act and after consultation with appropriate Federal, State, and local authorities, shall by regulation publish guidelines for the identification of those areas which, as a result of urban-industrial concentrations or other factors, have substantial water quality control problems.

(2) The Governor of each State, within sixty days after publication of the guidelines issued pursuant to paragraph (1) of this subsection, shall identify each area within the State which, as a result of urban-industrial concentrations or other factors, has substantial water quality control problems. Not later than one hundred and twenty days following such identification and after consultation with appropriate elected and other officials of local governments having jurisdiction in such areas, the Governor shall designate (A) the boundaries of each such area, and (B) a single representative organization, including elected officials from local governments or their designees, capable of developing effective areawide waste treatment management plans for such an area. The Governor may in the same manner at any later time identify any additional area (or modify an existing area) for which he determines areawide waste treatment management to be appropriate, designate the boundaries of such area, and designate an organization capable

of developing effective areawide waste treatment management plans for such area.

(3) With respect to any area which, pursuant to the guidelines published under paragraph (1) of this subsection, is located in two or more States, the Governors of the respective States shall consult and cooperate in carrying out the provisions of paragraph (2), with a view toward designating the boundaries of the interstate area having common water quality control problems and for which areawide waste treatment management plans would be most effective, and toward designating, within one hundred and eighty days after publication of guidelines issued pursuant to paragraph (1) of this subsection, of a single representative organization capable of developing effective areawide waste treatment management plans for such area.

(4) If a Governor does not act, either by designating or determining not to make a designation under paragraph (2) of this subsection, within the time required by such paragraph, or if, in the case of an interstate area, the Governors of the States involved do not designate a planning organization within the time required by paragraph (3) of this subsection, the chief elected officials of local governments within an area may by agreement designate (A) the boundaries for such an area, and (B) a single representative organization including elected officials from such local governments, or their designees, capable of developing an areawide waste treatment management plan for such area.

(5) Existing regional agencies may be designated under paragraphs (2), (3), and (4) of this subsection.

(6) The State shall act as a planning agency for all portions of such State which are not designated under paragraphs (2), (3), or (4) of this subsection.

(7) Designations under this subsection shall be subject to the approval of the Administrator.

(b)(1)(A) Not later than one year after the date of designation of any organization under subsection (a) of this section such organization shall have in operation a continuing areawide waste treatment management planning process consistent with section 201 of this Act. Plans prepared in accordance with this process shall contain alternatives for waste treatment management, and be applicable to all wastes generated within the area involved. The initial plan prepared in accordance with such process shall be certified by the Governor and submitted to the Administrator not later than two years after the planning process is in operation.

(B) For any agency designated after 1975 under subsection (a) of this section and for all portions of a State for which the State is required to act as the planning agency in accordance with subsection (a)(6), the initial plan prepared in accordance with such process shall be certified by the Governor and submitted to the Administrator not later than three years after the receipt of the initial grant award authorized under subsection (f) of this section.

(2) Any plan prepared under such process shall include, but not be limited to—

(A) the identification of treatment works necessary to meet the anticipated municipal and industrial waste treatment needs of the area over a twenty-year period, annually updated (including an analysis of alternative waste treatment systems), including any requirements for the acquisition of land for treatment purposes; the necessary waste water collection and urban storm water runoff systems; and a program to provide the necessary financial arrangements for the development of such treatment works, and an identification of open space and recreation opportunities that can be expected to result from improved water quality, including consideration of potential use of lands associated with treatment works and increased access to water-based recreation;

(B) the establishment of construction priorities for such treatment works and time schedules for the initiation and completion of all treatment works;

(C) the establishment of a regulatory program to—

(i) implement the waste treatment management requirements of section 201(c),

(ii) regulate the location, modification, and construction of any facilities within such area which may result in any discharge in such area, and

(iii) assure that any industrial or commercial waste discharged into any treatment works in such area meet applicable pretreatment requirements;

(D) the identification of those agencies necessary to construct, operate, and maintain all facilities required by the plan and otherwise to carry out the plan;

(E) the identification of the measures necessary to carry out the plan (including financing), the period of time necessary to carry out the plan, the costs of carrying out the plan within such time, and the economic, social, and environmental impact of carrying out the plan within such time;

(F) a process to (i) identify, if appropriate, agriculturally and silviculturally related nonpoint sources of pollution, including return flows from irrigated agriculture, and their cumulative effects, runoff from manure disposal areas, and from land used for livestock and crop production, and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources;

(G) a process of (i) identify, if appropriate, mine-related sources of pollution including new, current, and abandoned surface and underground mine runoff, and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources;

(H) a process to (i) identify construction activity related sources of pollution, and (ii) set forth procedures and methods (including land use requirements) to control to the extent feasible such sources;

(I) a process to (i) identify, if appropriate, salt water intrusion into rivers, lakes, and estuaries resulting from reduction of fresh water flow from any cause, including irrigation, obstruction, ground water extraction, and diversion, and (ii) set forth procedures and methods to control such intrusion to the

extent feasible where such procedures and methods are otherwise a part of the waste treatment management plan;

(J) a process to control the disposition of all residual waste generated in such area which could affect water quality; and

(K) a process to control the disposal of pollutants on land or in subsurface excavations within such area to protect ground and surface water quality.

(3) Areawide waste treatment management plans shall be certified annually by the Governor or his designee (or Governors or their designees, where more than one State is involved) as being consistent with applicable basin plans and such areawide waste treatment management plans shall be submitted to the Administrator for his approval.

(4)(A) Whenever the Governor of any State determines (and notifies the Administrator) that consistency with a statewide regulatory program under section 303 so requires, the requirements of clauses (F) through (K) of paragraph (2) of this subsection shall be developed and submitted by the Governor to the Administrator for approval for application to a class or category of activity throughout such State.

(B) Any program submitted under subparagraph (A) of this paragraph which, in whole or in part, is to control the discharge or other placement of dredged or fill material into the navigable waters shall include the following:

(i) A consultation process which includes the State agency with primary jurisdiction over fish and wildlife resources.

(ii) A process to identify and manage the discharge or other placement of dredged or fill material which adversely affects navigable waters, which shall complement and be coordinated with a State program under section 404 conducted pursuant to this Act.

(iii) A process to assure that any activity conducted pursuant to a best management practice will comply with the guidelines established under section 404(b)(1), and sections 307 and 403 of this Act.

(iv) A process to assure that any activity conducted pursuant to a best management practice can be terminated or modified for cause including, but not limited to, the following:

(I) violation of any condition of the best management practice;

(II) change in any activity that requires either a temporary or permanent reduction or elimination of the discharge pursuant to the best management practice.

(v) A process to assure continued coordination with Federal and Federal-State water-related planning and reviewing processes, including the National Wetlands Inventory.

(C) If the Governor of a State obtains approval from the Administrator of a statewide regulatory program which meets the requirements of subparagraph (B) of this paragraph and if such State is administering a permit program under section 404 of this Act, no person shall be required to obtain an individual permit pursuant to such section, or to comply with a general permit issued pursuant to such section, with respect to any appropriate activity within such State for which a best management practice has been ap-

proved by the Administrator under the program approved by the Administrator pursuant to this paragraph.

(D)(i) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with the requirements of this section, the Administrator shall so notify the State, and if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

(ii) In the case of a State with a program submitted and approved under this paragraph, the Administrator shall withdraw approval of such program under this subparagraph only for a substantial failure of the State to administer its program in accordance with the requirements of this paragraph.

(c)(1) The Governor of each State, in consultation with the planning agency designated under subsection (a) of this section, at the time a plan is submitted to the Administrator, shall designate one or more waste treatment management agencies (which may be an existing or newly created local, regional or State agency or potential subdivision) for each area designated under subsection (a) of this section and submit such designations to the Administrator.

(2) The Administrator shall accept any such designation, unless, within 120 days of such designation, he finds that the designated management agency (or agencies) does not have adequate authority—

(A) to carry out appropriate portions of an areawide waste treatment management plan developed under subsection (b) of this section;

(B) to manage effectively waste treatment works and related facilities serving such area in conformance with any plan required by subsection (b) of this section;

(C) directly or by contract, to design and construct new works, and to operate and maintain new and existing works as required by any plan developed pursuant to subsection (b) of this section;

(D) to accept and utilize grants, or other funds from any source, for waste treatment management purposes;

(E) to raise revenues, including the assessment of waste treatment charges;

(F) to incur short- and long-term indebtedness;

(G) to assure in implementation of an areawide waste treatment management plan that each participating community pays its proportionate share of treatment costs;

(H) to refuse to receive any wastes from any municipality or subdivision thereof, which does not comply with any provisions of an approved plan under this section applicable to such area; and

(I) to accept for treatment industrial wastes.

(d) After a waste treatment management agency having the authority required by subsection (c) has been designated under such subsection for an area and a plan for such area has been approved under subsection (b) of this section, the Administrator shall

not make any grant for construction of a publicy owned treatment works under section 201(g)(1) within such area except to such designated agency and for works in conformity with such plan.

(e) No permit under section 402 of this Act shall be issued for any point source which is in conflict with a plan approved pursuant to subsection (b) of this section.

(f)(1) The Administrator shall make grants to any agency designated under subsection (a) of this section for payment of the reasonable costs of developing and operating a continuing areawide waste treatment management planning process under subsection (b) of this section.

(2) For the two-year period beginning on the date of the first grant is made under paragraph (1) of this subsection to an agency, if such first grant is made before October 1, 1977, the amount of each such grant to such agency shall be 100 per centum of the costs of developing and operating a continuing areawide waste treatment management planning process under subsection (b) of this section, and thereafter the amount granted to such agency shall not exceed 75 per centum of such costs in each succeeding one-year period. In the case of any other grant made to an agency under such paragraph (1) of this subsection, the amount of such grant shall not exceed 75 per centum of the costs of developing and operating a continuing areawide waste treatment management planning process in any year.

(3) Each applicant for a grant under this subsection shall submit to the Administrator for his approval each proposal for which a grant is applied for under this subsection. The Administrator shall act upon such proposal as soon as practicable after it has been submitted, and his approval of that proposal shall be deemed a contractual obligation of the United States for the payment of its contribution to such proposal, subject to such amounts as are provided in appropriation Acts. There is authorized to be appropriated to carry out this subsection not to exceed $50,000,000 for the fiscal year ending June 30, 1973, not to exceed $100,000,000 for the fiscal year ending June 30, 1974, not to exceed $150,000,000 per fiscal year for the fiscal years ending June 30, 1975, September 30, 1977, September 30, 1978, September 30, 1979, and September 30, 1980, not to exceed $100,000,000 per fiscal year for the fiscal years ending September 30, 1981, and September 30, 1982, and such sums as may be necessary for fiscal years 1983 through 1990.

(g) The Administrator is authorized, upon request of the Governor or the designated planning agency, and without reimbursement, to consult with, and provide technical assistance to, any agency designated under subsection (a) of this section in the development of areawide waste treatment management plans under subsection (b) of this section.

(h)(1) The Secretary of the Army, acting through the Chief of Engineers, in cooperation with the Administrator is authorized and directed, upon request of the Governor or the designated planning organization, to consult with, and provide technical assistance to, any agency designed [1] under subsection (a) of this section in devel-

[1] So in original. Probably should be "designated".

oping and operating a continuing areawide waste treatment management planning process under subsection (b) of this section.

(2) There is authorized to be appropriated to the Secretary of the Army, to carry out this subsection, not to exceed $50,000,000 per fiscal year for the fiscal years ending June 30, 1973, and June 30, 1974.

(i)(1) The Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, shall, upon request of the Governor of a State, and without reimbursement, provide technical assistance to such State in developing a statewide program for submission to the Administrator under subsection (b)(4)(B) of this section and in implementing such program after its approval.

(2) There is authorized to be appropriated to the Secretary of the Interior $6,000,000 to complete the National Wetlands Inventory of the United States, by December 31, 1981, and to provide information from such Inventory to States as it becomes available to assist such States in the development and operation of programs under this Act.

(j)(1) The Secretary of Agriculture, with the concurrence of the Administrator, and acting through the Soil Conservation Service and such other agencies of the Department of Agriculture as the Secretary may designate, is authorized and directed to establish and administer a program to enter into contracts, subject to such amounts as are provided in advance by appropriation acts, of not less than five years nor more than ten years with owners and operators having control of rural land for the purpose of installing and maintaining measures incorporating best management practices to control nonpoint source pollution for improved water quality in those States or areas for which the Administrator has approved a plan under subsection (b) of this section where the practices to which the contracts apply are certified by the management agency designated under subsection (c)(1) of this section to be consistent with such plans and will result in improved water quality. Such contracts may be entered into during the period ending not later than September 31, 1988. Under such contracts the land owners or operator shall agree—

(i) to effectuate a plan approved by a soil conservation district, where one exists, under this section for his farm, ranch, or other land substantially in accordance with the schedule outlined therein unless any requirement thereof is waived or modified by the Secretary;

(ii) to forfeit all rights to further payments or grants under the contract and refund to the United States all payments and grants received thereunder, with interest, upon his violation of the contract at any stage during the time he has control of the land if the Secretary, after considering the recommendations of the soil conservation district, where one exists, and the Administrator, determines that such violation is of such a nature as to warrant termination of the contract, or to make refunds or accept such payment adjustments as the Secretary may deem appropriate if he determines that the violation by the owner or operator does not warrant termination of the contract;

(iii) upon transfer of his right and interest in the farm, ranch, or other land during the contract period to forfeit all rights to further payments or grants under the contract and refund to the United States all payments or grants received thereunder, with interest, unless the transferee of any such land agrees with the Secretary to assume all obligations of the contract;

(iv) not to adopt any practice specified by the Secretary on the advice of the Administrator in the contract as a practice which would tend to defeat the purposes of the contract;

(v) to such additional provisions as the Secretary determines are desirable and includes in the contract to effectuate the purposes of the program or to facilitate the practical administration of the program.

(2) In return for such agreement by the landowner or operator the Secretary shall agree to provide technical assistance and share the cost of carrying out those conservation practices and measures set forth in the contract for which he determines that cost sharing is appropriate and in the public interest and which are approved for cost sharing by the agency designated to implement the plan developed under subsection (b) of this section. The portion of such cost (including labor) to be shared shall be that part which the Secretary determines is necessary and appropriate to effectuate the installation of the water quality management practices and measures under the contract, but not to exceed 50 per centum of the total cost of the measures set forth in the contract; except the Secretary may increase the matching cost share where he determines that (1) the main benefits to be derived from the measures are related to improving offsite water quality, and (2) the matching share requirement would place a burden on the landowner which would probably prevent him from participating in the program.

(3) The Secretary may terminate any contract with a landowner or operator by mutual agreement with the owner or operator if the Secretary determines that such termination would be in the public interest, and may agree to such modification of contracts previously entered into as he may determine to be desirable to carry out the purposes of the program or facilitate the practical administration thereof or to accomplish equitable treatment with respect to other conservation, land use, or water quality programs.

(4) In providing assistance under this subsection the Secretary will give priority to those areas and sources that have the most significant effect upon water quality. Additional investigations or plans may be made, where necessary, to supplement approved water quality management plans, in order to determine priorities.

(5) The Secretary shall, where practicable, enter into agreements with soil conservation districts, State soil and water conservation agencies, or State water quality agencies to administer all or part of the program established in this subsection under regulations developed by the Secretary. Such agreements shall provide for the submission of such reports as the Secretary deems necessary, and for payment by the United States of such portion of the costs incurred in the administration of the program as the Secretary may deem appropriate.

(6) The contracts under this subsection shall be entered into only in areas where the management agency designated under subsection (c)(1) of this section assures an adequate level of participation by owners and operators having control of rural land in such areas. Within such areas the local soil conservation district, where one exists, together with the Secretary of Agriculture, will determine the priority of assistance among individual land owners and operators to assure that the most critical water quality problems are addressed.

(7) The Secretary, in consultation with the Administrator and subject to section 304(k) of this Act, shall, not later than September 30, 1978, promulgate regulations for carrying out this subsection and for support and cooperation with other Federal and non-Federal agencies for implementation of this subsection.

(8) This program shall not be used to authorize or finance projects that would otherwise be eligible for assistance under the terms of Public Law 83–566.

(9) There are hereby authorized to be appropriated to the Secretary of Agriculture $200,000,000 for fiscal year 1979, $400,000,000 for fiscal year 1980, $100,000,000 for fiscal year 1981, $100,000,000 for fiscal year 1982, and such sums as may be necessary for fiscal years 1983 through 1990, to carry out this subsection. The program authorized under this subsection shall be in addition to, and not in substitution of, other programs in such area authorized by this or any other public law.

(33 U.S.C. 1288)

BASIN PLANNING

SEC. 209. (a) The President, acting through the Water Resources Council, shall, as soon as practicable, prepare a Level B plan under the Water Resource Planning Act for all basins in the United States. All such plans shall be completed not later than January 1, 1980, except that priority in the preparation of such plans shall be given to those basins and portions thereof which are within those areas designated under paragraphs (2), (3), and (4) of subsection (a) of section 208 of this Act.

(b) The President, acting through the Water Resources Council, shall report annually to Congress on progress being made in carrying out this section. The first such report shall be submitted not later than January 31, 1973.

(c) There is authorized to be appropriated to carry out this section not to exceed $200,000,000.

(33 U.S.C. 1289)

ANNUAL SURVEY

SEC. 210. The Administrator shall annually make a survey to determine the efficiency of the operation and maintenance of treatment works constructed with grants made under this Act, as compared to the efficiency planned at the time the grant was made. The results of such annual survey shall be reported to Congress not later than 90 days after the date of convening of each session of Congress.

(33 U.S.C. 1290)

SEWAGE COLLECTION SYSTEMS

SEC. 211. (a) No grant shall be made for a sewage collection system under this title unless such grant (1) is for replacement or major rehabilitation of an existing collection system and is necessary to the total integrity and performance of the waste treatment works serving such community, or (2) is for a new collection system in an existing community with sufficient existing or planned capacity adequately to treat such collected sewage and is consistent with section 201 of this Act.

(b) If the Administrator uses population density as a test for determining the eligibility of a collector sewer for assistance it shall be only for the purpose of evaluating alternatives and determining the needs for such system in relation to ground or surface water quality impact.

(c) No grant shall be made under this title from funds authorized for any fiscal year during the period beginning October 1, 1977, and ending September 30, 1990, for treatment works for control of pollutant discharges from separate storm sewer systems.

(33 U.S.C. 1291)

DEFINITIONS

SEC. 212. As used in this title—

(1) The term "construction" means any one or more of the following: preliminary planning to determine the feasibility of treatment works, engineering, architectural, legal, fiscal, or economic investigations or studies, surveys, designs, plans, working drawings, specifications, procedures, field testing of innovative or alternative waste water treatment processes and techniques meeting guidelines promulgated under section 304(d)(3) of this Act, or other necessary actions, erection, building, acquisition, alteration, remodeling, improvement, or extension of treatment works, or the inspection or supervision of any of the foregoing items.

(2)(A) The term "treatment works" means any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 201 of this act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process (including land use for the storage of treated wastewater in land treatment systems prior to land application) or is used for ultimate disposal of residues resulting from such treatment.

(B) In addition to the definition contained in subparagraph (A) of this paragraph, "treatment works" means any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water runoff, or industrial waste, including waste in combined storm water and sanitary sewer systems. Any application for construction

grants which includes wholly or in part such methods or systems shall, in accordance with guidelines published by the Administrator pursuant to subparagraph (C) of this paragraph, contain adequate data and analysis demonstrating such proposal to be, over the life of such works, the most cost efficient alternative to comply with sections 301 or 302 of this Act, or the requirements of section 201 of this Act.

(C) For the purposes of subparagraph (B) of this paragraph, the Administrator shall, within one hundred and eighty days after the date of enactment of this title, publish and thereafter revise no less often than annually, guidelines for the evaluation of methods, including cost-effective analysis, described in subparagraph (B) of this paragraph.

(3) The term "replacement" as used in this title means those expenditures for obtaining and installing equipment, accessories, or appurtenances during the useful life of the treatment works necessary to maintain the capacity and performance for which such works are designed and constructed.

(33 U.S.C. 1292)

LOAN GUARANTEES FOR CONSTRUCTION OF TREATMENT WORKS

SEC. 213. (a) Subject to the conditions of this section and to such terms and conditions as the Administrator determines to be necessary to carry out the purposes of this title, the Administrator is authorized to guarantee, and to make commitments to guarantee, the principal and interest (including interest accruing between the date of default and the date of the payment in full of the guarantee) of any loan, obligation, or participation therein of any State, municipality, or intermunicipal or interstate agency issued directly and exclusively to the Federal Financing Bank to finance that part of the cost of any grant-eligible project for the construction of publicly owned treatment works not paid for with Federal financial assistance under this title (other than this section), which project the Administrator has determined to be eligible for such financial assistance under this title, including, but not limited to, projects eligible for reimbursement under section 206 of this title.

(b) No guarantee, or commitment to make a guarantee, may be made pursuant to this section—

(1) unless the Administrator certifies that the issuing body is unable to obtain on reasonable terms sufficient credit to finance its actual needs without such guarantee; and

(2) unless the Administrator determines that there is a reasonable assurance or repayment of the loan, obligation, or participation therein.

A determination of whether financing is available at reasonable rates shall be made by the Secretary of the Treasury with relationship to the current average yield on outstanding marketable obligations of municipalities of comparable maturity.

(c) The Administrator is authorized to charge reasonable fees for the investigation of an application for a guarantee and for the issuance of a commitment to make a guarantee.

(d) The Administrator, in determining whether there is a reasonable assurance of repayment, may require a commitment which would apply to such repayment. Such commitment may include, but not be limited to, any funds received by such grantee from the amounts appropriated under section 206 of this Act.

(33 U.S.C. 1293)

PUBLIC INFORMATION

SEC. 214. The Administrator shall develop and operate within one year of the date of enactment of this section, a continuing program of public information and education on recycling and reuse of wastewater (including sludge), the use of land treatment, and methods for the reduction of wastewater volume.

(33 U.S.C. 1294)

REQUIREMENTS FOR AMERICAN MATERIALS

SEC. 215. Notwithstanding any other provision of law, no grant for which application is made after February 1, 1978, shall be made under this title for any treatment works unless only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States, and only such manufactured articles, materials, and supplies as have been manufactured in the United States, substantially all from articles, materials, or supplies mined, produced, or manufactured, as the case may be, in the United States will be used in such treatment works. This section shall not apply in any case where the Administrator determines, based upon those factors the Administrator deems relevant, including the available resources of the agency, it to be inconsistent with the public interest (including multilateral government procurement agreements) or the cost to be unreasonable, or if articles, materials, or supplies of the class or kind to be used or the articles, materials, or supplies from which they are manufactured are not mined, produced, or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

(33 U.S.C. 1295)

DETERMINATION OF PRIORITY

SEC. 216. Notwithstanding any other provision of this Act, the determination of the priority to be given each category of projects for construction of publicly owned treatment works within each State shall be made solely by that State, except that if the Administrator, after a public hearing, determines that a specific project will not result in compliance with the enforceable requirements of this Act, such project shall be removed from the State's priority list and such State shall submit a revised priority list. These categories shall include, but not be limited to (A) secondary treatment, (B) more stringent treatment, (C) infiltration-in-flow correction, (D) major sewer system rehabilitation, (E) new collector sewers and appurtenances, (F) new interceptors and appurtenances, and (G) correction of combined sewer overflows. Not less than 25 per centum of funds allocated to a State in any fiscal year under this title for construction of publicly owned treatment works in such State shall

be obligated for those types of projects referred to in clauses (D), (E), (F), and (G) of this section, if such projects are on such State's priority list for that year and are otherwise eligible for funding in that fiscal year. It is the policy of Congress that projects for wastewater treatment and management undertaken with Federal financial assistance under this Act by any State, municipality, or intermunicipal or interstate agency shall be projects which, in the estimation of the State, are designed to achieve optimum water quality management, consistent with the public health and water quality goals and requirements of the Act.

(33 U.S.C. 1296)

COST-EFFECTIVENESS GUIDELINES

SEC. 217. Any guidelines for cost-effectiveness analysis published by the Administrator under this title shall provide for the identification and selection of cost effective alternatives to comply with the objective and goals of this Act and sections 201(b), 201(d), 201(g)(2)(A), and 301(b)(2)(B) of this Act.

(33 U.S.C. 1297)

COST EFFECTIVENESS

SEC. 218. (a) It is the policy of Congress that a project for waste treatment and management undertaken with Federal financial assistance under this Act by any State, municipality, or intermunicipal or interstate agency shall be considered as an overall waste treatment system for waste treatment and management, and shall be that system which constitutes the most economical and cost-effective combination of devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 201 of this Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping power, and other equipment, and their appurtenances; extension, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process (including land use for the storage of treated wastewater in land treatment systems prior to land application) or which is used for ultimate disposal of residues resulting from such treatment; water efficiency measures and devices; and any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water runoff, or industrial waste, including waste in combined storm water and sanitary sewer systems; to meet the requirements of this Act.

(b) In accordance with the policy set forth in subsection (a) of this section, before the Administrator approves any grant to any State, municipality, or intermunicipal or interstate agency for the erection, building, acquisition, alteration, remodeling, improvement, or extension of any treatment works the Administrator shall determine that the facilities plan of which such treatment works

are a part constitutes the most economical and cost-effective combination of treatment works over the life of the project to meet the requirements of this Act, including, but not limited to, consideration of construction costs, operation, maintenance, and replacement costs.

(c) In furtherance of the policy set forth in subsection (a) of this section, the Administrator shall require value engineering review in connection with any treatment works, prior to approval of any grant for the erection, building, acquisition, alteration, remodeling, improvement, or extension of such treatment works, in any case in which the cost of such erection, building, acquisition, alteration, remodeling, improvement, or extension is projected to be in excess of $10,000,000. For purposes of this subsection, the term "value engineering review" means a specialized cost control technique which uses a systematic and creative approach to identify and to focus on unnecessarily high cost in a project in order to arrive at a cost saving without sacrificing the reliability or efficiency of the project.

(d) This section applies to projects for waste treatment and management for which no treatment works including a facilities plan for such project have received Federal financial assistance for the preparation of construction plans and specifications under this Act before the date of enactment of this section.

(33 U.S.C. 1298)

STATE CERTIFICATION OF PROJECTS

SEC. 219. Whenever the Governor of a State which has been delegated sufficient authority to administer the construction grant program under this title in that State certifies to the Administrator that a grant application meets applicable requirements of Federal and State law for assistance under this title, the Administrator shall approve or disapprove such application within 45 days of the date of receipt of such application. If the Administrator does not approve or disapprove such application within 45 days of receipt, the application shall be deemed approved. If the Administrator disapproves such application the Administrator shall state in writing the reasons for such disapproval. Any grant approved or deemed approved under this section shall be subject to amounts provided in appropriation Acts.

(33 U.S.C. 1299)

SEC. 220. PILOT PROGRAM FOR ALTERNATIVE WATER SOURCE PROJECTS.

(a) POLICY.—Nothing in this section shall be construed to affect the application of section 101(g) of this Act and all of the provisions of this section shall be carried out in accordance with the provisions of section 101(g).

(b) IN GENERAL.—The Administrator may establish a pilot program to make grants to State, interstate, and intrastate water resource development agencies (including water management districts and water supply authorities), local government agencies, private utilities, and nonprofit entities for alternative water source projects to meet critical water supply needs.

(c) ELIGIBLE ENTITY.—The Administrator may make grants under this section to an entity only if the entity has authority

under State law to develop or provide water for municipal, industrial, and agricultural uses in an area of the State that is experiencing critical water supply needs.

(d) SELECTION OF PROJECTS.—

(1) LIMITATION.—A project that has received funds under the reclamation and reuse program conducted under the Reclamation Projects Authorization and Adjustment Act of 1992 (43 U.S.C. 390h et seq.) shall not be eligible for grant assistance under this section.

(2) ADDITIONAL CONSIDERATION.—In making grants under this section, the Administrator shall consider whether the project is located within the boundaries of a State or area referred to in section 1 of the Reclamation Act of June 17, 1902 (32 Stat. 385), and within the geographic scope of the reclamation and reuse program conducted under the Reclamation Projects Authorization and Adjustment Act of 1992 (43 U.S.C. 390h et seq.).

(3) GEOGRAPHICAL DISTRIBUTION.—Alternative water source projects selected by the Administrator under this section shall reflect a variety of geographical and environmental conditions.

(e) COMMITTEE RESOLUTION PROCEDURE.—

(1) IN GENERAL.—No appropriation shall be made for any alternative water source project under this section, the total Federal cost of which exceeds $3,000,000, if such project has not been approved by a resolution adopted by the Committee on Transportation and Infrastructure of the House of Representatives or the Committee on Environment and Public Works of the Senate.

(2) REQUIREMENTS FOR SECURING CONSIDERATION.—For purposes of securing consideration of approval under paragraph (1), the Administrator shall provide to a committee referred to in paragraph (1) such information as the committee requests and the non-Federal sponsor shall provide to the committee information on the costs and relative needs for the alternative water source project.

(f) USES OF GRANTS.—Amounts from grants received under this section may be used for engineering, design, construction, and final testing of alternative water source projects designed to meet critical water supply needs. Such amounts may not be used for planning, feasibility studies or for operation, maintenance, replacement, repair, or rehabilitation.

(g) COST SHARING.—The Federal share of the eligible costs of an alternative water source project carried out using assistance made available under this section shall not exceed 50 percent.

(h) REPORTS.—On or before September 30, 2004, the Administrator shall transmit to Congress a report on the results of the pilot program established under this section, including progress made toward meeting the critical water supply needs of the participants in the pilot program.

(i) DEFINITIONS.—In this section, the following definitions apply:

(1) ALTERNATIVE WATER SOURCE PROJECT.—The term "alternative water source project" means a project designed to

provide municipal, industrial, and agricultural water supplies in an environmentally sustainable manner by conserving, managing, reclaiming, or reusing water or wastewater or by treating wastewater. Such term does not include water treatment or distribution facilities.

(2) CRITICAL WATER SUPPLY NEEDS.—The term "critical water supply needs" means existing or reasonably anticipated future water supply needs that cannot be met by existing water supplies, as identified in a comprehensive statewide or regional water supply plan or assessment projected over a planning period of at least 20 years.

(j) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section a total of $75,000,000 for fiscal years 2002 through 2004. Such sums shall remain available until expended.

(33 U.S.C. 1300)

SEC. 221. SEWER OVERFLOW CONTROL GRANTS.

(a) IN GENERAL.—In any fiscal year in which the Administrator has available for obligation at least $1,350,000,000 for the purposes of section 601—

(1) the Administrator may make grants to States for the purpose of providing grants to a municipality or municipal entity for planning, design, and construction of treatment works to intercept, transport, control, or treat municipal combined sewer overflows and sanitary sewer overflows; and

(2) subject to subsection (g), the Administrator may make a direct grant to a municipality or municipal entity for the purposes described in paragraph (1).

(b) PRIORITIZATION.—In selecting from among municipalities applying for grants under subsection (a), a State or the Administrator shall give priority to an applicant that—

(1) is a municipality that is a financially distressed community under subsection (c);

(2) has implemented or is complying with an implementation schedule for the nine minimum controls specified in the CSO control policy referred to in section 402(q)(1) and has begun implementing a long-term municipal combined sewer overflow control plan or a separate sanitary sewer overflow control plan;

(3) is requesting a grant for a project that is on a State's intended use plan pursuant to section 606(c); or

(4) is an Alaska Native Village.

(c) FINANCIALLY DISTRESSED COMMUNITY.—

(1) DEFINITION.—In subsection (b), the term "financially distressed community" means a community that meets affordability criteria established by the State in which the community is located, if such criteria are developed after public review and comment.

(2) CONSIDERATION OF IMPACT ON WATER AND SEWER RATES.—In determining if a community is a distressed community for the purposes of subsection (b), the State shall consider, among other factors, the extent to which the rate of growth of a community's tax base has been historically slow such that

implementing a plan described in subsection (b)(2) would result in a significant increase in any water or sewer rate charged by the community's publicly owned wastewater treatment facility.

(3) INFORMATION TO ASSIST STATES.—The Administrator may publish information to assist States in establishing affordability criteria under paragraph (1).

(d) COST-SHARING.—The Federal share of the cost of activities carried out using amounts from a grant made under subsection (a) shall be not less than 55 percent of the cost. The non-Federal share of the cost may include, in any amount, public and private funds and in-kind services, and may include, notwithstanding section 603(h), financial assistance, including loans, from a State water pollution control revolving fund.

(e) ADMINISTRATIVE REPORTING REQUIREMENTS.—If a project receives grant assistance under subsection (a) and loan assistance from a State water pollution control revolving fund and the loan assistance is for 15 percent or more of the cost of the project, the project may be administered in accordance with State water pollution control revolving fund administrative reporting requirements for the purposes of streamlining such requirements.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $750,000,000 for each of fiscal years 2002 and 2003. Such sums shall remain available until expended.

(g) ALLOCATION OF FUNDS.—

(1) FISCAL YEAR 2002.—Subject to subsection (h), the Administrator shall use the amounts appropriated to carry out this section for fiscal year 2002 for making grants to municipalities and municipal entities under subsection (a)(2), in accordance with the criteria set forth in subsection (b).

(2) FISCAL YEAR 2003.—Subject to subsection (h), the Administrator shall use the amounts appropriated to carry out this section for fiscal year 2003 as follows:

(A) Not to exceed $250,000,000 for making grants to municipalities and municipal entities under subsection (a)(2), in accordance with the criteria set forth in subsection (b).

(B) All remaining amounts for making grants to States under subsection (a)(1), in accordance with a formula to be established by the Administrator, after providing notice and an opportunity for public comment, that allocates to each State a proportional share of such amounts based on the total needs of the State for municipal combined sewer overflow controls and sanitary sewer overflow controls identified in the most recent survey conducted pursuant to section 516(b)(1).

(h) ADMINISTRATIVE EXPENSES.—Of the amounts appropriated to carry out this section for each fiscal year—

(1) the Administrator may retain an amount not to exceed 1 percent for the reasonable and necessary costs of administering this section; and

(2) the Administrator, or a State, may retain an amount not to exceed 4 percent of any grant made to a municipality or

municipal entity under subsection (a), for the reasonable and necessary costs of administering the grant.

(i) REPORTS.—Not later than December 31, 2003, and periodically thereafter, the Administrator shall transmit to Congress a report containing recommended funding levels for grants under this section. The recommended funding levels shall be sufficient to ensure the continued expeditious implementation of municipal combined sewer overflow and sanitary sewer overflow controls nationwide.

(33 U.S.C. 1301)

TITLE III—STANDARDS AND ENFORCEMENT

EFFLUENT LIMITATIONS

SEC. 301. (a) Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.

(b) In order to carry out the objective of this Act there shall be achieved—

(1)(A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of this Act, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 307 of this Act; and

(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 203 of this Act prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 304(d)(1) of this Act; or,

(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedule of compliance, established pursuant to any State law or regulations, (under authority preserved by section 510) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this Act.

(2)(A) for pollutants identified in subparagraphs (C), (D), and (F) of this paragraph, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(2) of this Act, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information de-

veloped pursuant to section 315), that such elimination is technologically and economically achievable for category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(2) of this Act, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 307 of this Act;

[(B) subparagraph (B) repealed by section 21(b) of P.L. 97–117.]

(C) with respect to all toxic pollutants referred to in table 1 of Committee Print Numbered 95–30 of the Committee on Public Works and Transportation of the House of Representatives compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989;

(D) for all toxic pollutants listed under paragraph (1) of subsection (a) of section 307 of this Act which are not referred to in subparagraph (C) of this paragraph compliance with effluent limitation in accordance with subparagraph (A) of this paragraph as expeditiously as practicable, but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989;

(E) as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989, compliance with effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which in the case of pollutants identified pursuant to section 304(a)(4) of this Act shall require application of the best conventional pollutant control technology as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(4) of this Act; and

(F) for all pollutants (other than those subject to subparagraphs (C), (D), or (E) of this paragraph) compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable but in no case later than 3 years after the date such limitations are established, and in no case later than March 31, 1989.

(3)(A) for effluent limitations under paragraph (1)(A)(i) of this subsection promulgated after January 1, 1982, and requiring a level of control substantially greater or based on fundamentally different control technology than under permits for an industrial category issued before such date, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 304(b), and in no case later than March 31, 1989; and

(B) for any effluent limitation in accordance with paragraph (1)(A)(i), (2)(A)(i), or (2)(E) of this subsection established

only on the basis of section 402(a)(1) in a permit issued after enactment of the Water Quality Act of 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established, and in no case later than March 31, 1989.

(c) The Administrator may modify the requirements of subsection (b)(2)(A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

(d) Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

(e) Effluent limitations established pursuant to this section or section 302 of this Act shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this Act.

(f) Notwithstanding any other provisions of this Act it shall be unlawful to discharge any radiological, chemical, or biological warfare agent, any high-level radioactive waste, or any medical waste, into the navigable waters.

(g) MODIFICATIONS FOR CERTAIN NONCONVENTIONAL POLLUTANTS.—

(1) GENERAL AUTHORITY.—The Administrator, with the concurrence of the State, may modify the requirements of subsection (b)(2)(A) of this section with respect to the discharge from any point source of ammonia, chlorine, color, iron, and total phenols (4AAP) (when determined by the Administrator to be a pollutant covered by subsection (b)(2)(F)) and any other pollutant which the Administrator lists under paragraph (4) of this subsection.

(2) REQUIREMENTS FOR GRANTING MODIFICATIONS.—A modification under this subsection shall be granted only upon a showing by the owner or operator of a point source satisfactory to the Administrator that—

(A) such modified requirements will result at a minimum in compliance with the requirements of subsection (b)(1)(A) or (C) of this section, whichever is applicable;

(B) such modified requirements will not result in any additional requirements on any other point or nonpoint source; and

(C) such modification will not interfere with the attainment or maintenance of that water quality which shall assure protection of public water supplies, and the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities, in and on the water and such modification will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic tox-

icity (including carcinogenicity, mutagenicity or teratogenicity), or synergistic propensities.

(3) LIMITATION ON AUTHORITY TO APPLY FOR SUBSECTION (c) MODIFICATION.—If an owner or operator of a point source applies for a modification under this subsection with respect to the discharge of any pollutant, such owner or operator shall be eligible to apply for modification under subsection (c) of this section with respect to such pollutant only during the same time-period as he is eligible to apply for a modification under this subsection.

(4) PROCEDURES FOR LISTING ADDITIONAL POLLUTANTS.—

(A) GENERAL AUTHORITY.—Upon petition of any person, the Administrator may add any pollutant to the list of pollutants for which modification under this section is authorized (except for pollutants identified pursuant to section 304(a)(4) of this Act, toxic pollutants subject to section 307(a) of this Act, and the thermal component of discharges) in accordance with the provisions of this paragraph.

(B) REQUIREMENTS FOR LISTING.—

(i) SUFFICIENT INFORMATION.—The person petitioning for listing of an additional pollutant under this subsection shall submit to the Administrator sufficient information to make the determinations required by this subparagraph.

(ii) TOXIC CRITERIA DETERMINATION.—The Administrator shall determine whether or not the pollutant meets the criteria for listing as a toxic pollutant under section 307(a) of this Act.

(iii) LISTING AS TOXIC POLLUTANT.—If the Administrator determines that the pollutant meets the criteria for listing as a toxic pollutant under section 307(a), the Administrator shall list the pollutant as a toxic pollutant under section 307(a).

(iv) NONCONVENTIONAL CRITERIA DETERMINATION.—If the Administrator determines that the pollutant does not meet the criteria for lising as a toxic pollutant under such section and determines that adequate test methods and sufficient data are available to make the determinations required by paragraph (2) of this subsection with respect to the pollutant, the Administrator shall add the pollutant to the list of pollutants specified in paragraph (1) of this subsection for which modifications are authorized under this subsection.

(C) REQUIREMENTS FOR FILING OF PETITIONS.—A petition for lising of a pollutant under this paragraph—

(i) must be filed not later than 270 days after the date of promulgation of an applicable effluent guideline under section 304;

(ii) may be filed before promulgation of such guideline; and

(iii) may be filed with an application for a modification under paragraph (1) with respect to the discharge of such pollutant.

(D) DEADLINE FOR APPROVAL OF PETITION.—A decision to add a pollutant to the list of pollutants for which modifications under this subsection are authorized must be made within 270 days after the date of promulgation of an applicable effluent guideline under section 304.

(E) BURDEN OF PROOF.—The burden of proof for making the determinations under subparagraph (B) shall be on the petitioner.

(5) REMOVAL OF POLLUTANTS.—The Administrator may remove any pollutant from the list of pollutants for which modifications are authorized under this subsection if the Administrator determines that adequate test methods and sufficient data are no longer available for determining whether or not modifications may be granted with respect to such pollutant under paragraph (2) of this subsection.

(h) The Administrator, with the concurrence of the State, may issue a permit under section 402 which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from a publicly owned treatment works into marine waters, if the applicant demonstrates to the satisfaction of the Administrator that—

(1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 304(a)(6) of this Act;

(2) the discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, and allows recreational activities, in and on the water;

(3) the applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;

(4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;

(5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;

(6) in the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works

were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;

(7) to the extent practicable the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;

(8) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;

(9) the applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 304(a)(1) of this Act after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged.

For the purposes of this subsection the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial sea or the waters of the contiguous zone, or into saline estuarine waters where there is strong tidal movement and other hydrological and geological characteristics which the Administrator determines necessary to allow compliance with paragraph (2) of this subsection, and section 101(a)(2) of this Act. For the purposes of paragraph (9), "primary or equivalent treatment" means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biological oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate. A municipality which applies secondary treatment shall be eligible to receive a permit pursuant to this subsection which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from any treatment works owned by such municipality into marine waters. No permit issued under this subsection shall authorize the discharge of sewage sludge into marine waters. In order for a permit to be issued under this subsection for the discharge of a pollutant into marine waters, such marine waters must exhibit characteristics assuring that water providing dilution does not contain significant amounts of previously discharged effluent from such treatment works. No permit issued under this subsection shall authorize the discharge of any pollutant into saline estuarine waters which at the time of application do not support a balanced indigenous population of shellfish, fish and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge. Notwithstanding any other provisions of this subsection, no permit may be issued under this subsection for discharge of a pollutant into the New York Bight Apex consisting of the ocean waters

of the Atlantic Ocean westward of 73 degrees 30 minutes west longitude and northward of 40 degrees 10 minutes north latitude.

(i)(1) Where construction is required in order for a planned or extisting publicly owned treatment works to achieve limitations under subsection (b)(1)(B) or (b)(1)(C) of this section, but (A) construction cannot be completed with the time required in such subsection, or (B) the United States has failed to make financial assistance under this Act available in time to achieve such limitations by the time specified in such subsection, the owner or operator of such treatment works may request the Administrator (or if appropriate the State) to issue a permit pursuant to section 402 of this Act or to modify a permit issued pursuant to that section to extend such time for compliance. Any such request shall be filed with the Administrator (or if appropriate the State) within 180 days after the date of enactment of the Water Quality Act of 1987. The Administrator (or if appropriate the State) may grant such request and issue or modify such a permit, which shall contain a schedule of compliance for the publicly owned treatment works based on the earliest date by which such financial assistance will be available from the United States and construction can be completed, but in no event later than July 1, 1988, and shall contain such other terms and conditions, including those necessary to carry out subsections (b) through (g) of section 201 of this Act, section 307 of this Act, and such interim effluent limitations applicable to that treatment works as the Administrator determines are necessary to carry out the provisions of this Act.

(2)(A) Where a point source (other than a publicly owned treatment works) will not achieve the requirements of subsections (b)(1)(A) and (b)(1)(C) of this section and—

(i) if a permit issued prior to July 1, 1977, to such point source is based upon a discharge into a publicly owned treatment works; or

(ii) if such point source (other than a publicly owned treatment works) had before July 1, 1977, a contract (enforceable against such point source) to discharge into a publicly owned treatment works; or

(iii) if either an application made before July 1, 1977, for a construction grant under this Act for a publicly owned treatment works, or engineering or architectural plans or working drawings made before July 1, 1977, for a publicly owned treatment works, show that such point source was to discharge into such publicly owned treatment works,

and such publicly owned treatment works is presently unable to accept such discharge without construction, and in the case of a discharge to an existing publicly owned treatment works, such treatment works has an extension pursuant to paragraph (1) of this subsection, the owner or operator of such point source may request the Administrator (or if appropriate the State) to issue or modify such a permit pursuant to such section 402 to extend such time for compliance. Any such request shall be filed with the Administrator (or if appropriate the State) within 180 days after the date of enactment of this subsection or the filing of a request by the appropriate publicly owned treatment works under paragraph (1) of this subsection, whichever is later. If the Administrator (or if appro-

priate the State) finds that the owner or operator of such point source has acted in good faith, he may grant such request and issue or modify such a permit, which shall contain a schedule of compliance for the point source to achieve the requirements of subsections (b)(1)(A) and (C) of this section and shall contain such other terms and conditions, including pretreatment and interim effluent limitations and water conservation requirements applicable to that point source, as the Administrator determines are necessary to carry out the provisions of this Act.

(B) No time modification granted by the Administrator (or if appropriate the State) pursuant to paragraph (2)(A) of this subsection shall extend beyond the earliest date practicable for compliance or beyond the date of any extension granted to the appropriate publicly owned treatment works pursuant to paragraph (1) of this subsection, but in no event shall it extend beyond July 1, 1988, and no such time modification shall be granted unless (i) the publicly owned treatment works will be in operation and available to the point source before July 1, 1988, and will meet the requirements to subsections (b)(1) (B) and (C) of this section after receiving the discharge from that point source; and (ii) the point source and the publicly owned treatment works have entered into an enforceable contract requiring the point source to discharge into the publicly owned treatment works, the owner or operator of such point source to pay the costs required under section 204 of this Act, and the publicly owned treatment works to accept the discharge from the point source; and (iii) the permit for such point source requires point source to meet all requirements under section 307 (a) and (b) during the period of such time modification.

(j)(1) Any application filed under this section for a modification of the provisions of—

(A) subsection (b)(1)(B) under subsection (h) of this section shall be filed not later that [1] the 365th day which begins after the date of enactment of the Municipal Wastewater Treatment Construction Grant Amendments of 1981, except that a publicly owned treatment works which prior to December 31, 1982, had a contractual arrangement to use a portion of the capacity of an ocean outfall operated by another publicly owned treatment works which has applied for or received modification under subsection (h), may apply for a modification of subsection (h) in its own right not later than 30 days after the date of the enactment of the Water Quality Act of 1987, and except as provided in paragraph (5);

(B) subsection (b)(2)(A) as it applies to pollutants identified in subsection (b)(2)(F) shall be filed not later than 270 days after the date of promulgation of an applicable effluent guideline under section 304 or not later than 270 days after the date of enactment of the Clean Water Act of 1977, whichever is later.

(2) Subject to paragraph (3) of this section, any application for a modification filed under subsection (g) of this section shall not operate to stay any requirement under this Act, unless in the judgment of the Administrator such a stay or the modification sought

[1] So in law. Probably should be "than".

will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity or teratogenicity), or synergistic propensities, and that there is a substantial likelihood that the applicant will succeed on the merits of such application. In the case of an application filed under subsection (g) of this section, the Administrator may condition any stay granted under this paragraph on requiring the filing of a bond or other appropriate security to assure timely compliance with the requirements from which a modification is sought.

(3) COMPLIANCE REQUIREMENTS UNDER SUBSECTION (g).—

(A) EFFECT OF FILING.—An application for a modification under subsection (g) and a petition for listing of a pollutant as a pollutant for which modifications are authorized under such subsection shall not stay the requirement that the person seeking such modification or listing comply with effluent limitations under this Act for all pollutants not the subject of such application or petition.

(B) EFFECT OF DISAPPROVAL.—Disapproval of an application for a modification under subsection (g) shall not stay the requirement that the person seeking such modification comply with all applicable effluent limitations under this Act.

(4) DEADLINE FOR SUBSECTION (g) DECISION.—An application for a modification with respect to a pollutant filed under subsection (g) must be approved or disapproved not later than 365 days after the date of such filing; except that in any case in which a petition for listing such pollutant as a pollutant for which modifications are authorized under such subsection is approved, such application must be approved or disapproved not later than 365 days after the date of approval of such petition.

(5) EXTENSION OF APPLICATION DEADLINE.—

(A) IN GENERAL.—In the 180-day period beginning on the date of the enactment of this paragraph, the city of San Diego, California, may apply for a modification pursuant to subsection (h) of the requirements of subsection (b)(1)(B) with respect to biological oxygen demand and total suspended solids in the effluent discharged into marine waters.

(B) APPLICATION.—An application under this paragraph shall include a commitment by the applicant to implement a waste water reclamation program that, at a minimum, will—

(i) achieve a system capacity of 45,000,000 gallons of reclaimed waste water per day by January 1, 2010; and

(ii) result in a reduction in the quantity of suspended solids discharged by the applicant into the marine environment during the period of the modification.

(C) ADDITIONAL CONDITIONS.—The Administrator may not grant a modification pursuant to an application submitted under this paragraph unless the Administrator determines that such modification will result in removal of not less than 58 percent of the biological oxygen demand (on an annual average) and not less than 80 percent of total suspended solids (on a monthly average) in the discharge to which the application applies.

(D) PRELIMINARY DECISION DEADLINE.—The Administrator shall announce a preliminary decision on an application submitted under this paragraph not later than 1 year after the date the application is submitted.

(k) In the case of any facility subject to a permit under section 402 which proposes to comply with the requirements of subsection (b)(2)(A) or (b)(2)(E) of this section by replacing existing production capacity with an innovative production process which will result in an effluent reduction significantly greater than that required by the limitation otherwise applicable to such facility and moves toward the national goal of eliminating the discharge of all pollutants, or with the installation of an innovative control technique that has a substantial likelihood for enabling the facility to comply with the applicable effluent limitation by achieving a significantly greater effluent reduction than that required by the applicable effluent limitation and moves toward the national goal of eliminating the discharge of all pollutants, or by achieving the required reduction with an innovative system that has the potential for significantly lower costs than the systems which have been determined by the Administrator to be economically achievable, the Administrator (or the State with an approved program under section 402, in consultation with the Administrator) may establish a date for compliance under subsection (b)(2)(A) or (b)(2)(E) of this section no later than two years after the date for compliance with such effluent limitation which would otherwise be applicable under such subsection, if it is also determined that such innovative system has the potential for industrywide application.

(l) Other than as provided in subsection (n) of this section, the Administrator may not modify any requirement of this section as it applies to any specific pollutant which is on the toxic pollutant list under section 307(a)(1) of this Act.

(m)(1) The Administrator, with the concurrence of the State, may issue a permit under section 402 which modifies the requirements of subsections (b)(1)(A) and (b)(2)(E) of this section, and of section 403, with respect to effluent limitations to the extent such limitations relate to biochemical oxygen demand and pH from discharges by an industrial discharger in such State into deep waters of the territorial seas, if the applicant demonstrates and the Administrator finds that—

(A) the facility for which modification is sought is covered at the time of the enactment of this subsection by National Pollutant Discharge Elimination System permit number CA0005894 or CA0005282;

(B) the energy and environmental costs of meeting such requirements of subsections (b)(1)(A) and (b)(2)(E) and section

403 exceed by an unreasonable amount the benefits to be obtained, including the objectives of this Act;

(C) the applicant has established a system for monitoring the impact of such discharges on a representative sample of aquatic biota;

(D) such modified requirements will not result in any additional requirements on any other point or nonpoint source;

(E) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;

(F) the discharge is into waters where there is strong tidal movement and other hydrological and geological characteristics which are necessary to allow compliance with this subsection and section 101(a)(2) of this Act;

(G) the applicant accepts as a condition to the permit a contractural obligation to use funds in the amount required (but not less than $250,000 per year for ten years) for research and development of water pollution control technology, including but not limited to closed cycle technology;

(H) the facts and circumstances present a unique situation which, if relief is granted, will not establish a precedent or the relaxation of the requirements of this Act applicable to similarly situated discharges; and

(I) no owner or operator of a facility comparable to that of the applicant situated in the United States has demonstrated that it would be put at a competitive disadvantage to the applicant (or the parent company or any subsidiary thereof) as a result of the issuance of a permit under this subsection.

(2) The effluent limitations established under a permit issued under paragraph (1) shall be sufficient to implement the applicable State water quality standards, to assure the protection of public water supplies and protection and propagation of a balanced, indigenous population of shellfish, fish, fauna, wildlife, and other aquatic organisms, and to allow recreational activities in and on the water. In setting such limitations, the Administrator shall take into account any seasonal variations and the need for an adequate margin of safety, considering the lack of essential knowledge concerning the relationship between effluent limitations and water quality and the lack of essential knowledge of the effects of discharges on beneficial uses of the receiving waters.

(3) A permit under this subsection may be issued for a period not to exceed five years, and such a permit may be renewed for one additional period not to exceed five years upon a demonstration by the applicant and a finding by the Administrator at the time of application for any such renewal that the provisions of this subsection are met.

(4) The Administrator may terminate a permit issued under this subsection if the Administrator determines that there has been a decline in ambient water quality of the receiving waters during the period of the permit even if a direct cause and effect relationship cannot be shown: *Provided,* That if the effluent from a source with a permit issued under this subsection is contributing to a de-

cline in ambient water quality of the receiving waters, the Administrator shall terminate such permit.

(n) FUNDAMENTALLY DIFFERENT FACTORS.—

(1) GENERAL RULE.—The Administrator, with the concurrance of the State, may establish an alternative requirement under subsection (b)(2) or section 307(b) for a facility that modifies the requirements of national effluent limitation guidelines or categorical pretreatment standards that would otherwise be applicable to such facility, if the owner or operator of such facility demonstrates to the satisfaction of the Administrator that—

(A) the facility is fundamentally different with respect to the factors (other than cost) specified in section 304(b) or 304(g) and considered by the Administrator in establishing such national effluent limitation guidelines or categorical pretreatment standards;

(B) the application—

(i) is based solely on information and supporting data submitted to the Administrator during the rule making for establishment of the applicable national effluent limitation guidelines or categorical pretreatment standard specifically raising the factors that are fundamentally different for such facility; or

(ii) is based on information and supporting data referred to in clause (i) and information and supporting data the applicant did not have a reasonable opportunity to submit during such rulemaking;

(C) the alternative requirement is no less stringent than justified by the fundamental difference; and

(D) the alternative requirement will not result in a non-water quality environmental impact which is markedly more adverse than the impact considered by the Administrator in establishing such national affluent limitation guideline or categorical pretreatment standard.

(2) TIME LIMIT FOR APPLICATIONS.—An application for an alternative requirement which modifies the requirements of an effluent limitation or pretreatment standard under this subsection must be submitted to the Administrator within 180 days after the date on which such limitation or standard is established or revised, as the case may be.

(3) TIME LIMIT FOR DECISION.—The Administrator shall approve or deny by final agency action an application submitted under this subsection within 180 days after the date such application is filed with the Administrator.

(4) SUBMISSION OF INFORMATION.—The Administrator may allow an applicant under this subsection to submit information and supporting data until the earlier of the date the application is approved or denied or the last day that the Administrator has to approve or deny such application.

(5) TREATMENT OF PENDING APPLICATIONS.—For the purposes of this subsection, an application for an alternative requirement based on fundamentally different factors which is pending on the date of the enactment of this subsection shall be treated as having been submitted to the Administrator on

the 180th day following such date of enactment. The applicant may amend the application to take into account the provisions of this subsection.

(6) EFFECT OF SUBMISSION OF APPLICATION.—An application for an alternative requirement under this subsection shall not stay the applicant's obligation to comply with the effluent limitation guideline or categorical pretreatment standard which is the subject of the application.

(7) EFFECT OF DENIAL.—If an application for an alternative requirement which modifies the requirements of an effluent limitation or pretreatment standard under this subsection is denied by the Administrator, the applicant must comply with such limitation or standard as established or revised, as the case may be.

(8) REPORTS.—By January 1, 1997, and January 1 of every odd-numbered year thereafter, the Administrator shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of Representatives a report on the status of applications for alternative requirements which modify the requirements of effluent limitations under section 301 or 304 of this Act or any national categorical pretreatment standard under section 307(b) of this Act filed before, on, or after such date of enactment.

(o) APPLICATION FEES.—The Administrator shall prescribe and collect from each applicant fees reflecting the reasonable administrative costs incurred in reviewing and processing applications for modifications submitted to the Administrator pursuant to subsections (c), (g), (i), (k), (m), and (n) of section 301, section 304(d)(4), and section 316(a) of this Act. All amounts collected by the Administrator under this subsection shall be deposited into a special fund of the Treasury entitled "Water Permits and Related Services" which shall thereafter be available for appropriation to carry out activities of the Environmental Protection Agency for which such fees were collected.

(p) MODIFIED PERMIT FOR COAL REMINING OPERATIONS.—

(1) IN GENERAL.—Subject to paragraphs (2) through (4) of this subsection, the Administrator, or the State in any case which the State has an approved permit program under section 402(b), may issue a permit under section 402 which modifies the requirements of subsection (b)(2)(A) of this section with respect to the pH level of any pre-existing discharge, and with respect to pre-existing discharges of iron and manganese from the remined area of any coal remining operation or with respect to the pH level or level of iron or manganese in any pre-existing discharge affected by the remining operation. Such modified requirements shall apply the best available technology economically achievable on a case-by-case basis, using best professional judgment, to set specific numerical effluent limitations in each permit.

(2) LIMITATIONS.—The Administrator or the State may only issue a permit pursuant to paragraph (1) if the applicant demonstrates to the satisfaction of the Administrator or the State, as the case may be, that the coal remining operation will

result in the potential for improved water quality from the remining operation but in no event shall such a permit allow the pH level of any discharge, and in no event shall such a permit allow the discharges of iron and manganese, to exceed the levels being discharged from the remined area before the coal remining operation begins. No discharge from, or affected by, the remining operation shall exceed State water quality standards established under section 303 of this Act.

(3) DEFINITIONS.—For purposes of this subsection—

(A) COAL REMINING OPERATION.—The term "coal remining operation" means a coal mining operation which begins after the date of the enactment of this subsection at a site on which coal mining was conducted before the effective date of the Surface Mining Control and Reclamation Act of 1977.

(B) REMINED AREA.—The term "remined area" means only that area of any coal remining operation on which coal mining was conducted before the effective date of the Surface Mining Control and Reclamation Act of 1977.

(C) PRE-EXISTING DISCHARGE.—The term "pre-existing discharge" means any discharge at the time of permit application under this subsection.

(4) APPLICABILITY OF STRIP MINING LAWS.—Nothing in this subsection shall affect the application of the Surface Mining Control and Reclamation Act of 1977 to any coal remining operation, including the application of such Act to suspended solids.

(33 U.S.C. 1311)

WATER QUALITY RELATED EFFLUENT LIMITATIONS

SEC. 302. (a) Whenever, in the judgment of the Administrator or as identified under section 304(l), discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 301(b)(2) of this Act, would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public health, public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.

(b) MODIFICATIONS OF EFFLUENT LIMITATIONS.—

(1) NOTICE AND HEARING.—Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator shall publish such proposed limitation and within 90 days of such publication hold a public hearing.

(2) PERMITS.—

(A) NO REASONABLE RELATIONSHIP.—The Administrator, with the concurrence of the State, may issue a permit which modifies the effluent limitations required by subsection (a) of this section for pollutants other than toxic

pollutants if the applicant demonstrates at such hearing that (whether or not technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this Act) from achieving such limitation.

(B) REASONABLE PROGRESS.—The Administrator, with the concurrence of the State, may issue a permit which modifies the effluent limitations required by subsection (a) of this section for toxic pollutants for a single period not to exceed 5 years if the applicant demonstrates to the satisfaction of the Administrator that such modified requirements (i) will represent the maximum degree of control within the economic capability of the owner and operator of the source, and (ii) will result in reasonable further progress beyond the requirements of section 301(b)(2) toward the requirements of subsection (a) of this section.

(c) The establishment of effluent limitations under this section shall not operate to delay the application of any effluent limitation established under section 301 of this Act.

(33 U.S.C. 1312)

WATER QUALITY STANDARDS AND IMPLEMENTATION PLANS

SEC. 303. (a)(1) In order to carry out the purpose of this Act, any water quality standard applicable to interstate waters which was adopted by any State and submitted to, and approved by, or is awaiting approval by, the Administrator pursuant to this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, shall remain in effect unless the Administrator determined that such standard is not consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. If the Administrator makes such a determination he shall, within three months after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after the date of such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(2) Any State which, before the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, has adopted, pursuant to its own law, water quality standards applicable to intrastate waters shall submit such standards to the Administrator within thirty days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. Each such standard shall remain in effect, in the same manner and to the same extent as any other water quality standard established under this Act unless the Administrator determines that such standard is inconsistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972. If the Administrator makes such a determination he shall not later than the one hun-

dred and twentieth day after the date of submission of such standards, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(3)(A) Any State which prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 has not adopted pursuant to its own laws water quality standards applicable to intrastate waters shall, not later than one hundred and eighty days after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, adopt and submit such standards to the Administrator.

(B) If the Administrator determines that any such standards are consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, he shall approve such standards.

(C) If the Administrator determines that any such standards are not consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, he shall, not later than the ninetieth day after the date of submission of such standards, notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standards pursuant to subsection (b) of this section.

(b)(1) The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, if—

(A) the State fails to submit water quality standards within the times prescribed in subsection (a) of this section,

(B) a water quality standard submitted by such State under subsection (a) of this section is determined by the Administrator not to be consistent with the applicable requirements of subsection (a) of this section.

(2) The Administrator shall promulgate any water quality standard published in a proposed regulation not later than one hundred and ninety days after the date he publishes any such proposed standard, unless prior to such promulgation, such State has adopted a water quality standard which the Administrator determines to be in accordance with subsection (a) of this section.

(c)(1) The Governor of a State or the State water pollution control agency of such State shall from time to time (but at least once each three year period beginning with the date of enactment of the Federal Water Pollution Control Act Amendments of 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator.

(2)(A) Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Adminis-

trator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this Act. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

(B) Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria for all toxic pollutants listed pursuant to section 307(a)(1) of this Act for which criteria have been published under section 304(a), the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (1), or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 304(a)(8). Nothing in this section shall be construed to limit or delay the use of effluent limitations or other permit conditions based on or involving biological monitoring or assessment methods or previously adopted numerical criteria.

(3) If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this Act, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this Act, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection.

(4) The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved—

(A) if a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this Act, or

(B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this Act.

The Administrator shall promulgate any revised or new standard under this paragraph not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such

State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this Act.

(d)(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 301 are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

(D) Each State shall estimate for the waters identified in paragraph (1)(D) of this subsection the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for such protection and propagation in the identified waters or parts thereof.

(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 304(a)(2)(D), for his approval the waters identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has

not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife.

(4) LIMITATIONS ON REVISION OF CERTAIN EFFLUENT LIMITATIONS.—

(A) STANDARD NOT ATTAINED.—For waters identified under paragraph (1)(A) where the applicable water quality standard has not yet been attained, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.

(B) STANDARD ATTAINED.—For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standard, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

(e)(1) Each State shall have a continuing planning process approved under paragraph (2) of this subsection which is consistent with this Act.

(2) Each State shall submit not later than 120 days after the date of the enactment of the Water Pollution Control Amendments of 1972 to the Administrator for his approval a proposed continuing planning process which is consistent with this Act. Not later than thirty days after the date of submission of such a process the Administrator shall either approve or disapprove such process. The Administrator shall from time to time review each State's approved planning process for the purpose of insuring that such planning process is at all times consistent with this Act. The Administrator shall not approve any State permit program under title IV of this Act for any State which does not have an approved continuing planning process under this section.

(3) The Administrator shall approve any continuing planning process submitted to him under this section which will result in plans for all navigable waters within such State, which include, but are not limited to, the following:

(A) effluent limitations and schedules of compliance at least as stringent as those required by section 301(b)(1), section 301(b)(2), section 306, and section 307, and at least as

stringent as any requirements contained in any applicable water quality standard in effect under authority of this section;

(B) the incorporation of all elements of any applicable areawide waste management plans under section 208, and applicable basin plans under section 209 of this Act;

(C) total maximum daily load for pollutants in accordance with subsection (d) of this section;

(D) procedures for revision;

(E) adequate authority for intergovernmental cooperation;

(F) adequate implementation, including schedules of compliance, for revised or new water quality standards, under subsection (c) of this section;

(G) controls over the disposition of all residual waste from any water treatment processing;

(H) an inventory and ranking, in order of priority, of needs for construction of waste treatment works required to meet the applicable requirements of sections 301 and 302.

(f) Nothing in this section shall be construed to affect any effluent limitation, or schedule of compliance required by any State to be implemented prior to the dates set forth in sections 301(b)(1) and 301(b)(2) nor to preclude any State from requiring compliance with any effluent limitation or schedule of compliance at dates earlier than such dates.

(g) Water quality standards relating to heat shall be consistent with the requirements of section 316 of this Act.

(h) For the purposes of this Act the term "water quality standards" includes thermal water quality standards.

(i) COASTAL RECREATION WATER QUALITY CRITERIA.—

(1) ADOPTION BY STATES.—

(A) INITIAL CRITERIA AND STANDARDS.—Not later than 42 months after the date of the enactment of this subsection, each State having coastal recreation waters shall adopt and submit to the Administrator water quality criteria and standards for the coastal recreation waters of the State for those pathogens and pathogen indicators for which the Administrator has published criteria under section 304(a).

(B) NEW OR REVISED CRITERIA AND STANDARDS.—Not later than 36 months after the date of publication by the Administrator of new or revised water quality criteria under section 304(a)(9), each State having coastal recreation waters shall adopt and submit to the Administrator new or revised water quality standards for the coastal recreation waters of the State for all pathogens and pathogen indicators to which the new or revised water quality criteria are applicable.

(2) FAILURE OF STATES TO ADOPT.—

(A) IN GENERAL.—If a State fails to adopt water quality criteria and standards in accordance with paragraph (1)(A) that are as protective of human health as the criteria for pathogens and pathogen indicators for coastal recreation waters published by the Administrator, the Administrator shall promptly propose regulations for the State setting forth revised or new water quality standards

for pathogens and pathogen indicators described in paragraph (1)(A) for coastal recreation waters of the State.

(B) EXCEPTION.—If the Administrator proposes regulations for a State described in subparagraph (A) under subsection (c)(4)(B), the Administrator shall publish any revised or new standard under this subsection not later than 42 months after the date of the enactment of this subsection.

(3) APPLICABILITY.—Except as expressly provided by this subsection, the requirements and procedures of subsection (c) apply to this subsection, including the requirement in subsection (c)(2)(A) that the criteria protect public health and welfare.

(33 U.S.C. 1313)

INFORMATION AND GUIDELINES

SEC. 304. (a)(1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) criteria for water quality accurately reflecting the latest scientific knowledge (A) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, esthetics, and recreation which may be expected from the presence of pollutants in any body of water, including ground water; (B) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (C) on the effects of pollutants on biological community diversity, productivity, and stability, including information on the factors affecting rates of eutrophication and rates of organic and inorganic sedimentation for varying types of receiving waters.

(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) information (A) on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans; (B) on the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters and to allow recreational activities in and on the water; and (C) on the measurement and classification of water quality; and (D) for the purpose of section 303, on and the identification of pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.

(3) Such criteria and information and revisions thereof shall be issued to the States and shall be published in the Federal Register and otherwise made available to the public.

(4) The Administrator shall, within 90 days after the date of enactment of the Clean Water Act of 1977 and from time to time thereafter, publish and revise as appropriate information identifying conventional pollutants, including but not limited to, pollut-

ants classified as biological oxygen demanding, suspended solids, fecal coliform, and pH. The thermal component of any discharge shall not be identified as a conventional pollutant under this paragraph.

(5)(A) The Administrator, to the extent practicable before consideration of any request under section 301(g) of this Act and within six months after the date of enactment of the Clean Water Act of 1977, shall develop and publish information on the factors necessary for the protection of public water supplies, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and to allow recreational activities, in and on the water.

(B) The Administrator, to the extent practicable before consideration of any application under section 301(h) of this Act and within six months after the date of enactment of Clean Water Act of 1977, shall develop and publish information on the factors necessary for the protection of public water supplies, and the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife, and to allow recreational activities, in and on the water.

(6) The Administrator shall, within three months after enactment of the Clean Water Act of 1977 and annually thereafter, for purposes of section 301(h) of this Act publish and revise as appropriate information identifying each water quality standard in effect under this Act of State law, the specific pollutants associated with such water quality standard, and the particular waters to which such water quality standard applies.

(7) GUIDANCE TO STATES.—The Administrator, after consultation with appropriate State agencies and on the basis of criteria and information published under paragraphs (1) and (2) of this subsection, shall develop and publish, within 9 months after the date of the enactment of the Water Quality Act of 1987, guidance to the States on performing the identification required by section 304(l)(1) of this Act.

(8) INFORMATION ON WATER QUALITY CRITERIA.—The Administrator, after consultation with appropriate State agencies and within 2 years after the date of the enactment of the Water Quality Act of 1987, shall develop and publish information on methods for establishing and measuring water quality criteria for toxic pollutants on other bases than pollutant-by-pollutant criteria, including biological monitoring and assessment methods.

(9) REVISED CRITERIA FOR COASTAL RECREATION WATERS.—

(A) IN GENERAL.—Not later than 5 years after the date of the enactment of this paragraph, after consultation and in cooperation with appropriate Federal, State, tribal, and local officials (including local health officials), the Administrator shall publish new or revised water quality criteria for pathogens and pathogen indicators (including a revised list of testing methods, as appropriate), based on the results of the studies conducted under section 104(v), for the purpose of protecting human health in coastal recreation waters.

(B) REVIEWS.—Not later than the date that is 5 years after the date of publication of water quality criteria under

this paragraph, and at least once every 5 years thereafter, the Administrator shall review and, as necessary, revise the water quality criteria.

(b) For the purposes of adopting or revising effluent limitations under this Act the Administrator shall, after consultation with appropriate Federal and State agencies and other interested persons, publish within one year of enactment of this title, regulations, providing guidelines for effluent limitations, and, at least annually thereafter, revise, if appropriate, such regulations. Such regulations shall—

(1)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pullutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories to point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories of classes. Factors relating to the assessment of best practical control technology currently available to comply with subsection (b)(1) of section 301 of this Act shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

(2)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b)(2) of section 301 of this Act to be applicable to any point source (other than publicly owned treatment works) within such categories of classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

(3) identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants; and

(4)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best conventional pollutant control technology (including measures and practices) for classes and categories of point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the best conventional pollutant control technology measures and practices to comply with section 301(b)(2)(E) of this Act to be applicable to any point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best conventional pollutant control technology (including measures and practices) shall include consideration of the reasonableness of the relationship between the costs of attaining a reduction in effluents and the effluent reduction benefits derived, and the comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources, and shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate.

(c) The Administrator, after consultation, with appropriate Federal and State agencies and other interested persons, shall issue to the States and appropriate water pollution control agencies within 270 days after enactment of this title (and from time to time thereafter) information on the processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of this Act. Such information shall include technical and other data, including costs, as are available on alternative methods of elimination or reduction of the discharge of pollutants. Such information, and revisions thereof, shall be published in the Federal Register and otherwise shall be made available to the public.

(d)(1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within sixty days after enactment of this title (and from time to time thereafter) information, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment.

(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within nine months after the date of enactment of this title (and from time to time thereafter) information on alternative waste treatment management techniques and systems available to implement section 201 of this Act.

(3) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall promul-

gate witin one hundred and eighty days after the date of enactment of this subsection guidelines for identifying and evaluating innovative and alternative wastewater treatment process and techniques referred to in section 201(g)(5) of this Act.

(4) For the purposes of this subsection, such biological treatment facilities as oxidation ponds, lagoons, and ditches and trickling filters shall be deemed the equivalent of secondary treatment. The Administrator shall provide guidance under paragraph (1) of this subsection on design criteria for such facilities, taking into account pollutant removal efficiencies and, consistent with the objective of the Act, assuring that water quality will not be adversely affected by deeming such facilities as the equivalent of secondary treatment.

(e) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, may publish regulations, supplemental to any effluent limitations specified under subsections (b) and (c) of this section for a class or category of point sources, for any specific pollutant which the Administrator is charged with a duty to regulate as a toxic or hazardous pollutant under section 307(a)(1) or 311 of this Act, to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage which the Administrator determines are associated with or ancillary to the industrial manufacturing or treatment process within such class or category of point sources and may contribute significant amounts of such pollutants, to navigable waters. Any applicable controls established under this subsection shall be included as a requirement for the purposes of section 301, 302, 307, or 403, as the case may be, in any permit issued to a point source pursuant to section 402 of this Act.

(f) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under section 208 of this Act, within one year after the effective date of this subsection (and from time to time thereafter) information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from—

(A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;

(B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;

(C) all construction activity, including runoff from the facilities resulting from such construction;

(D) the disposal of pollutants in wells or in subsurface excavations;

(E) salt water intrusion resulting from reductions of fresh water flow from any cause, including extraction of ground water, irrigation, obstruction, and diversion; and

(F) changes in the movement, flow, or circulation of any navigable waters or ground waters, including changes caused by the construction of dams, levees, channels, causeways, or flow diversion facilities.

Such information and revisions thereof shall be published in the Federal Register and otherwise made available to the public.

(g)(1) For the purpose of assisting States in carrying out programs under section 402 of this Act, the Administrator shall publish, within one hundred and twenty days after the date of enactment of this title, and review at least annually thereafter and, if appropriate, revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean (either directly or through publicly owned treatment works) of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.

(2) When publishing guidelines under this subsection, the Administrator shall designate the category or categories of treatment works to which the guidelines shall apply.

(h) The Administrator shall, within one hundred and eighty days from the date of enactment of this title, promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to section 401 of this Act or permit application pursuant to section 402 of this Act.

(i) The Administrator shall (1) within sixty days after the enactment of this title promulgate guidelines for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources of discharge subject to any State program under section 402 of this Act, and (2) within sixty days from the date of enactment of this title promulgate guidelines establishing the minimum procedural and other elements of any State program under section 402 of this Act which shall include:

(A) monitoring requirements;

(B) reporting requirements (including procedures to make information available to the public);

(C) enforcement provisions; and

(D) funding, personnel qualifications, and manpower requirements (including a requirement that no board or body which approves permit applications or portions thereof shall include, as a member, any person who receives, or has during the previous two years received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit).

(j) LAKE RESTORATION GUIDANCE MANUAL.—The Administrator shall, within 1 year after the date of the enactment of the Water Quality Act of 1987 and biennially thereafter, publish and disseminate a lake restoration guidance manual describing methods, procedures, and processes to guide State and local efforts to improve, restore, and enhance water quality in the Nation's publicly owned lakes.

(k)(1) The Administrator shall enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior, and the heads of such other departments, agencies, and instrumentalities of the United States as the Administrator determines, to provide for the maximum utilization of other

Federal laws and programs for the purpose of achieving and maintaining water quality through appropriate implementation of plans approved under section 208 of this Act and nonpoint source pollution management programs approved under section 319 of this Act.

(2) The Administrator is authorized to transfer to the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior and the heads of such other departments, agencies, and instrumentalities of the United States as the Administrator determines, any funds appropriated under paragraph (3) of this subsection to supplement funds otherwise appropriated to programs authorized pursuant to any agreement under paragraph (1).

(3) There is authorized to be appropriated to carry out the provisions of this subsection, $100,000,000 per fiscal year for the fiscal years 1979 through 1983 and such sums as may be necessary for fiscal years 1984 through 1990.

(l) INDIVIDUAL CONTROL STRATEGIES FOR TOXIC POLLUTANTS.—

(1) STATE LIST OF NAVIGABLE WATERS AND DEVELOPMENT OF STRATEGIES.—Not later than 2 years after the date of the enactment of this subsection, each State shall submit to the Administrator for review, approval, and implementation under this subsection—

(A) a list of those waters within the State which after the application of effluent limitations required under section 301(b)(2) of this Act cannot reasonably be anticipated to attain or maintain (i) water quality standards for such waters reviewed, revised, or adopted in accordance with section 303(c)(2)(B) of this Act, due to toxic pollutants, or (ii) that water quality which shall assure protection of public health, public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water;

(B) a list of all navigable waters in such State for which the State does not expect the applicable standard under section 303 of this Act will be achieved after the requirements of sections 301(b), 306, and 307(b) are met, due entirely or substantially to discharges from point sources of any toxic pollutants listed pursuant to section 307(a);

(C) for each segment of the navigable waters included on such lists, a determination of the specific point sources discharging any such toxic pollutant which is believed to be preventing or impairing such water quality and the amount of each toxic pollutant discharged by each such source; and

(D) for each such segment, an individual control strategy which the State determines will produce a reduction in the discharge of toxic pollutants from point sources identified by the State under this paragraph through the establishment of effluent limitations under section 402 of this Act and water quality standards under section 303(c)(2)(B) of this Act, which reduction is sufficient, in combination with existing controls on point and nonpoint sources of pollution, to achieve the applicable water quality standard as

soon as possible, but not later than 3 years after the date of the establishment of such strategy.

(2) APPROVAL OR DISAPPROVAL.—Not later than 120 days after the last day of the 2-year period referred to in paragraph (1), the Administrator shall approve or disapprove the control strategies submitted under paragraph (1) by any State.

(3) ADMINISTRATOR'S ACTION.—If a State fails to submit control strategies in accordance with paragraph (1) or the Administrator does not approve the control strategies submitted by such State in accordance with paragraph (1), then, not later than 1 year after the last day of the period referred to in paragraph (2), the Administrator, in cooperation with such State and after notice and opportunity for public comment, shall implement the requirements of paragraph (1) in such State. In the implementation of such requirements, the Administrator shall, at a minimum, consider for listing under this subsection any navigable waters for which any person submits a petition to the Administrator for listing not later than 120 days after such last day.

(m) SCHEDULE FOR REVIEW OF GUIDELINES.—

(1) PUBLICATION.—Within 12 months after the date of the enactment of the Water Quality Act of 1987, and biennially thereafter, the Administrator shall publish in the Federal Register a plan which shall—

(A) establish a schedule for the annual review and revision of promulgated effluent guidelines, in accordance with subsection (b) of this section;

(B) identify categories of sources discharging toxic or nonconventional pollutants for which guidelines under subsection (b)(2) of this section and section 306 have not previously been published; and

(C) establish a schedule for promulgation of effluent guidelines for categories identified in subparagraph (B), under which promulgation of such guidelines shall be no later than 4 years after such date of enactment for categories identified in the first published plan or 3 years after the publication of the plan for categories identified in later published plans.

(2) PUBLIC REVIEW.—The Administrator shall provide for public review and comment on the plan prior to final publication.

(33 U.S.C. 1314)

WATER QUALITY INVENTORY

SEC. 305. (a) The Administrator, in cooperation with the States and with the assistance of appropriate Federal agencies, shall prepare a report to be submitted to the Congress on or before January 1, 1974, which shall—

(1) describe the specific quality, during 1973, with appropriate supplemental descriptions as shall be required to take into account seasonal, tidal, and other variations, of all navigable waters and the waters of the contiguous zone;

(2) include an inventory of all point sources of discharge (based on a qualitative and quantitative analysis of discharges) of pollutants, into all navigable waters and the waters of the contiguous zone; and

(3) identify specifically those navigable waters, the quality of which—

(A) is adequate to provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife and allow recreational activities in and on the water;

(B) can reasonably be expected to attain such level by 1977 or 1983; and

(C) can reasonably be expected to attain such level by any later date.

(b)(1) Each State shall prepare and submit to the Administrator by April 1, 1975, and shall bring up to date by April 1, 1976, and biennially thereafter, a report which shall include—

(A) a description of the water quality of all navigable waters in such State during the preceding year, with appropriate supplemental descriptions as shall be required to take into account seasonal, tidal, and other variations, correlated with the quality of water required by the objective of this Act (as identified by the Administrator pursuant to criteria published under section 304(a) of this Act) and the water quality described in subparagraph (B) of this paragraph;

(B) an analysis of the extent to which all navigable waters of such State provide for the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities in and on the water;

(C) an analysis of the extent to which the elimination of the discharge of pollutants and a level of water quality which provides for the protection and propagation of a balanced population of shellfish, fish, and wildlife and allows recreational activities in and on the water, have been or will be achieved by the requirements of this Act, together with recommendations as to additional action necessary to achieve such objectives and for what waters such additional action is necessary;

(D) an estimate of (i) the environmental impact, (ii) the economic and social costs necessary to achieve the objective of this Act in such State, (iii) the economic and social benefits of such achievement, and (iv) an estimate of the date of such achievement; and

(E) a description of the nature and extent of nonpoint sources of pollutants, and recommendations as to the programs which must be undertaken to control each category of such sources, including an estimate of the costs of implementing such programs.

(2) The Administrator shall transmit such State reports, together with an analysis thereof, to Congress on or before October 1, 1975, and October 1, 1976, and biennially thereafter.

(33 U.S.C. 1315)

NATIONAL STANDARDS OF PERFORMANCE

SEC. 306. (a) For purposes of this section:

(1) The term "standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(2) The term "new source" means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such sources, if such standard is thereafter promulgated in accordance with this section.

(3) The term "source" means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(4) The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a source.

(5) The term "construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

(b)(1)(A) The Administrator shall, within ninety days after the date of enactment of this title publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

pulp and paper mills;
paperboard, builders paper and board mills;
meat product and rendering processing;
dairy product processing;
grain mills;
canned and preserved fruits and vegetables processing;
canned and preserved seafood processing;
sugar processing;
textile mills;
cement manufacturing;
feedlots;
electroplating;
organic chemicals manufacturing;
inorganic chemicals manufacturing;
plastic and synthetic materials manufacturing;
soap and detergent manufacturing
fertilizer manufacturing;
petroleum refining;
iron and steel manufacturing;
nonferrous metals manufacturing;
phosphate manufacturing;
steam electric powerplants;
ferroalloy manufacturing;
leather tanning and finishing;
glass and asbestos manufacturing;

rubber processing; and
timber products processing.

(B) As soon as practicable, but in no case more than one year, after a category of sources is included in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technlogy and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator shall take into consideration the cost of achieving such effluent reduction, and any non-water quality environmental impact and energy requirements.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

(3) The provisions of this section shall apply to any new source owned or operated by the United States.

(c) Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure and the law of any State require the application and enforcement of standards of performance to at least the same extent as required by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

(d) Notwithstanding any other provision of this Act, any point source the construction of which is commenced after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of the Internal Revenue Code of 1954, whichever period ends first.

(e) After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

(33 U.S.C. 1316)

TOXIC AND PRETREATMENT EFFLUENT STANDARDS

SEC. 307. (a)(1) On and after the date of enactment of the Clean Water Act of 1977, the list of toxic pollutants or combination of pollutants subject to this Act shall consist of those toxic polllutants listed in table 1 of Committee Print Numbered 95–30 of the Committee on Public Works and Transportation of the House of Representatives, and the Administrator shall publish, not later than the thirtieth day after the date of enactment of the Clean Water Act of 1977, that list. From time to time thereafter, the Administrator may revise such list and the Administrator is authorized to add to or remove from such list any pollutant. The Administrator in publishing any revised list, including the addition or removal of any pollutant from such list, shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms, and the nature and extent of the effect of the toxic pollutant on such organisms. A determination of the Administrator under this paragraph shall be final except that if, on judicial review, such determination was based on arbitrary and capricious action of the Administrator, the Administrator shall make a redetermination.

(2) Each toxic pollutant listed in accordance with paragraph (1) of this subsection shall be subject to effluent limitations resulting from the application of the best available technology economically achieveable for the applicable category or class of point sources established in accordance with section 301(b)(2)(A) and 304(b)(2) of this Act. The Administrator, in his discretion, may publish in the Federal Register a proposed effluent standard (which may include a prohibition) establishing requirements for a toxic pollutant which, if an effluent limitation is applicable to a class or category of point sources, shall be applicable to such category or class only if such standard imposes more stringent requirements. Such published effluent standard (or prohibition) shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms, and the extent to which effective control is being or may be achieved under other regulatory authority. The Administrator shall allow a period of not less than sixty days following publication of any such proposed effluent standard (or prohibition) for written comment by interested persons on such proposed standard. In addition, if within thirty days of publication of any such proposed effluent standard (or prohibition) any interested person so requests, the Administrator shall hold a public hearing in connection therewith. Such a public hearing shall provide an opportunity for oral and written presentations, such cross-examination as the Administrator determines is appropriate on disputed issues of material fact, and the transcription of a verbatim record which shall be available to the public. After consideration of such comments and any information and material presented at any public hearing held on such proposed standard or prohibition, the Administrator shall promulgate such standards (or prohibition) with such modifications as the Administrator finds are

justified. Such promulgation by the Administrator shall be made within two hundred and seventy days after publication of proposed standard (or prohibition). Such standard (or prohibition) shall be final except that if, on judicial review, such standard was not based on substantial evidence, the Administrator shall promulgate a revised standard. Effluent limitations shall be established in accordance with sections 301(b)(2)(A) and 304(b)(2) for every toxic pollutant referred to in table 1 of Committee Print Numbered 95–30 of the Committee on Public Works and Transportation of the House of Representatives as soon as practicable after the date of enactment of the Clean Water Act of 1977, but no later than July 1, 1980. Such effluent limitations or effluent standards (or prohibitions) shall be established for every other toxic pollutant listed under paragraph (1) of this subsection as soon as practicable after it is so listed.

(3) Each such effluent standard (or prohibition) shall be reviewed and, if appropriate, revised at least every three years.

(4) Any effluent standard promulgated under this section shall be at that level which the Administrator determines provides an ample margin of safety.

(5) When proposing or promulgating any effluent standard (or prohibition) under this section, the Administrator shall designate the category or categories of sources to which the effluent standard (or prohibition) shall apply. Any disposal of dredged material may be included in such a category of sources after consultation with the Secretary of the Army.

(6) Any effluent standard (or prohibition) established pursuant to this section shall take effect on such date or dates as specified in the order promulgating such standard, but in no case, more than one year from the date of such promulgation. If the Administrator determines that compliance within one year from the date of promulgation is technologically infeasible for a category of sources, the Administrator may establish the effective date of the effluent standard (or prohibition) for such category at the earliest date upon which compliance can be feasibly attained by sources within such category, but in no event more than three years after the date of such promulgation.

(7) Prior to publishing any regulations pursuant to this section the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, States, independent experts, and Federal departments and agencies.

(b)(1) The Administrator shall, within one hundred and eighty days after the date of enactment of this title and from time to time thereafter, publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works (as defined in section 212 of this Act) which are publicly owned for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works. Not later than ninety days after such publication, and after opportunity for public hearing, the Administrator shall promulgate such pretreatment standards. Pretreatment standards under this subsection shall specify a time for compliance not to exceed three years from the date of promulga-

tion and shall be established to prevent the discharge of any pollutant through treatment works (as defined in section 212 of this Act) which are publicly owned, which pollutant interfers with, passes through, or otherwise is incompatible with such works. If, in the case of any toxic pollutant under subsection (a) of this section introduced by a source into a publicly owned treatment works, the treatment by such works removes all or any part of such toxic pollutant and the discharge from such works does not violate that effluent limitation or standard which would be applicable to such toxic pollutant if it were discharged by such source other than through a publicly owned treatment works, and does not prevent sludge use or disposal by such works in accordance with section 405 of this Act, then the pretreatment requirements for the sources actually discharging such toxic pollutant into such publicly owned treatment works may be revised by the owner or operator of such works to reflect the removal of such toxic pollutant by such works.

(2) The Administrator shall, from time to time, as control technology, processes, operating methods, or other alternative change, revise such standards following the procedures established by this subsection for promulgation of such standards.

(3) When proposing or promulgating any pretreatment standard under this section, the Administrator shall designate the category or categories of sources to which such standard shall apply.

(4) Nothing in this subsection shall affect any pretreatment requirement established by any State or local law not in conflict with any pretreatment standard established under this subsection.

(c) In order to ensure that any source introducing pollutants into a publicly owned treatment works, which source would be a new source subject to section 306 if it were to discharge pollutants, will not cause a violation of the effluent limitations established for any such treatment works, the Administrator shall promulgate pretreatment standards for the category of such sources simultaneously with the promulgation of standards of performance under section 306 for the equivalent category of new sources. Such pretreatment standards shall prevent the discharge of any pollutant into such treatment works, which pollutant may interfere with, pass through, or otherwise be incompatible with such works.

(d) After the effective date of any effluent standard or prohibition or pretreatment standard promulgated under this section, it shall be unlawful for any owner or operator of any source to operate any source in violation of any such effluent standard or prohibition or pretreatment standard.

(e) COMPLIANCE DATE EXTENSION FOR INNOVATIVE PRETREATMENT SYSTEMS.—In the case of any existing facility that proposes to comply with the pretreatment standards of subsection (b) of this section by applying an innovative system that meets the requirements of section 301(k) of this Act, the owner or operator of the publicly owned treatment works receiving the treated effluent from such facility may extend the date for compliance with the applicable pretreatment standard established under this section for a period not to exceed 2 years—

(1) if the Administrator determines that the innovative system has the potential for industrywide application, and

(2) if the Administrator (or the State in consultation with the Administrator, in any case in which the State has a pretreatment program approved by the Administrator)—

(A) determines that the proposed extension will not cause the publicly owned treatment works to be in violation of its permit under section 402 or of section 405 or to contribute to such a violation, and

(B) concurs with the proposed extension.

(33 U.S.C. 1317)

INSPECTIONS, MONITORING, AND ENTRY

SEC. 308. (a) Whenever required to carry out the objective of this Act, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, or standard of performance under this Act; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance; (3) any requirement established under this section; or (4) carrying out sections 305, 311, 402, 404 (relating to State permit programs), 405, and 504 of this Act—

(A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require; and

(B) the Administrator or his authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of his credentials—

(i) shall have a right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained under clause (A) of this subsection are located, and

(ii) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under clause (A), and sample any effluents which the owner or operator of such source is required to sample under such clause.

(b) Any records, reports, or information obtained under this section (1) shall, in the case of effluent data, be related to any applicable effluent limitations, toxic, pretreatment, or new source performance standards, and (2) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (other than effluent data), to which the Administrator has access under this section, if made public would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information, or particular portion thereof confidential in accordance with the pur-

poses of section 1905 of title 18 of the United States Code. Any authorized representative of the Administrator (including an authorized contractor acting as a representative of the Administrator) who knowingly or willfully publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information which is required to be considered confidential under this subsection shall be fined not more than $1,000 or imprisoned not more than 1 year, or both. Nothing in this subsection shall prohibit the Administrator or an authorized representative of the Administrator (including any authorized contractor acting as a representative of the Administrator) from disclosing records, reports, or information to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act.

(c) Each State may develop and submit to the Administrator procedures under State law for inspection, monitoring, and entry with respect to point sources located in such State. If the Administrator finds that the procedures and the law of any State relating to inspection, monitoring, and entry are applicable to at least the same extent as those required by this section, such State is authorized to apply and enforce its procedures for inspection, monitoring, and entry with respect to point sources located in such State (except with respect to point sources owned or operated by the United States).

(d) ACCESS BY CONGRESS.—Notwithstanding any limitation contained in this section or any other provision of law, all information reported to or otherwise obtained by the Administrator (or any representative of the Administrator) under this Act shall be made available, upon written request of any duly authorized committee of Congress, to such committee.

(33 U.S.C. 1318)

FEDERAL ENFORCEMENT

SEC. 309. (a)(1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any condition or limitation which implements section 301, 302, 306, 307, 308, 318, or 405 of this Act in a permit issued by a State under an approved permit program under section 402 or 404 of this Act, he shall proceed under his authority in paragraph (3) of this subsection or he shall notify the person in alleged violation and such State of such finding. If beyond the thirtieth day after the Administrator's notification the State has not commenced appropriate enforcement action, the Administrator shall issue an order requiring such person to comply with such condition or limitation or shall bring a civil action in accordance with subsection (b) of this section.

(2) Whenever, on the basis of information available to him, the Administrator finds that violations of permit conditions or limitations as set forth in paragraph (1) of this subsection are so widespread that such violations appear to result from a failure of the State to enforce such permit conditions or limitations effectively, he shall so notify the State. If the Administrator finds such failure extends beyond the thirtieth day after such notice, he shall give pub-

lic notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such conditions and limitations (hereafter referred to in this section as the period of "federally assumed enforcement"), except where an extension has been granted under paragraph (5)(B) of this subsection, the Administrator shall enforce any permit condition or limitation with respect to any person—

(A) by issuing an order to comply with such condition or limitation, or

(B) by bringing a civil action under subsection (b) of this section.

(3) Whenever on the basis of any information available to him the Administrator finds that any person is in violation of section 301, 302, 306, 307, 308, 318, or 405 of this Act, or is in violation of any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by him or by a State or in a permit issued under section 404 of this Act by a State, he shall issue an order requiring such person to comply with such section or requirement, or he shall bring a civil action in accordance with subsection (b) of this section.

(4) A copy of any order issued under this subsection shall be sent immediately by the Administrator to the State in which the violation occurs and other affected States. In any case in which an order under this subsection (or notice to a violator under paragraph (1) of this subsection) is issued to a corporation, a copy of such order (or notice) shall be served on any appropriate corporate officers. An order issued under this subsection relating to a violation of section 308 of this Act shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation.

(5)(A) Any order issued under this subsection shall be by personal service, shall state with reasonable specificity the nature of the violation, and shall specify a time for compliance not to exceed thirty days in the case of a violation of an interim compliance schedule or operation and maintenance requirement and not to exceed a time the Administrator determines to be reasonable in the case of a violation of a final deadline, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements.

(B) The Administrator may, if he determines (i) that any person who is a violator of, or any person who is otherwise not in compliance with, the time requirements under this Act or in any permit issued under this Act, has acted in good faith, and has made a commitment (in the form of contracts or other securities) of necessary resources to achieve compliance by the earliest possible date after July 1, 1977, but not later than April 1, 1979; (ii) that any extension under this provision will not result in the imposition of any additional controls on any other point or nonpoint source; (iii) that an application for a permit under section 402 of this Act was filed for such person prior to December 31, 1974; and (iv) that the facilities necessary for compliance with such requirements are under construction, grant an extension of the date referred to in section 301(b)(1)(A) to a date which will achieve compliance at the earliest time possible but not later than April 1, 1979.

(6) Whenever, on the basis of information available to him, the Administrator finds (A) that any person is in violation of section 301(b)(1) (A) or (C) of this Act, (B) that such person cannot meet the requirements for a time extension under section 301(i)(2) of this Act, and (C) that the most expeditious and appropriate means of compliance with this Act by such person is to discharge into a publicly owned treatment works, then, upon request of such person, the Administrator may issue an order requiring such person to comply with this Act at the earliest date practicable, but not later than July 1, 1983, by discharging into a publicly owned treatment works if such works concur with such order. Such order shall include a schedule of compliance.

(b) The Administrator is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction, for any violation for which he is authorized to issue a compliance order under subsection (a) of this section. Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given immediately to the appropriate State.

(c) CRIMINAL PENALTIES.—

(1) NEGLIGENT VIOLATIONS.—Any person who—

(A) negligently violates section 301, 302, 306, 307, 308, 311(b)(3), 318, or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator or by a State, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of this Act or in a permit issued under section 404 of this Act by the Secretary of the Army or by a State; or

(B) negligently introduces into a sewer system or into a publicly owned treatment works any pollutant or hazardous substance which such person knew or reasonably should have known could cause personal injury or property damage or, other than in compliance with all applicable Federal, State, or local requirements or permits, which causes such treatment works to violate any effluent limitation or condition in any permit issued to the treatment works under section 402 of this Act by the Administrator or a State;

shall be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or by both.

(2) KNOWING VIOLATIONS.—Any person who—

(A) knowingly violates section 301, 302, 306, 307, 308, 311(b)(3), 318, or 405 of this Act, or any permit condition or limitation implementing any of such sections in a per-

mit issued under section 402 of this Act by the Administrator or by a State, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of this Act or in a permit issued under section 404 of this Act by the Secretary of the Army or by a State; or

(B) knowingly introduces into a sewer system or into a publicly owned treatment works any pollutant or hazardous substance which such person knew or reasonably should have known could cause personal injury or property damage or, other than in compliance with all applicable Federal, State, or local requirements or permits, which causes such treatment works to violate any effluent limitation or condition in a permit issued to the treatment works under section 402 of this Act by the Administrator or a State;

shall be punished by a fine of not less that $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or by both.

(3) KNOWING ENDANGERMENT.—

(A) GENERAL RULE.—Any person who knowingly violates section 301, 302, 306, 307, 308, 311(b)(3), 318, or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator or by a State, or in a permit issued under section 404 of this Act by the Secretary of the Army or by a State, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this subparagraph, be subject to a fine of not more than $1,000,000. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

(B) ADDITIONAL PROVISIONS.—For the purpose of subparagraph (A) of this paragraph—

(i) in determining whether a defendant who is an individual knew that his conduct placed another person in imminent danger of death or serious bodily injury—

(I) the person is responsible only for actual awareness or actual belief that he possessed; and

(II) knowledge possessed by a person other than the defendant but not by the defendant himself may not be attributed to the defendant;

except that in proving the defendant's possession of actual knowledge, circumstantial evidence may be

used, including evidence that the defendant took affirmative steps to shield himself from relevant information;

(ii) it is an affirmative defense to prosecution that the conduct charged was consented to by the person endangered and that the danger and conduct charged were reasonably foreseeable hazards of—

(I) an occupation, a business, or a profession; or

(II) medical treatment or medical or scientific experimentation conducted by professionally approved methods and such other person had been made aware of the risks involved prior to giving consent;

and such defense may be established under this subparagraph by a preponderance of the evidence;

(iii) the term "organization" means a legal entity, other than a government, established or organized for any purpose, and such term includes a corporation, company, association, firm, partnership, joint stock company, foundation, institution, trust, society, union, or any other association of persons; and

(iv) the term "serious bodily injury" means bodily injury which involves a substantial risk of death, unconsciousness, extreme physical pain, protracted and obvious disfigurement, or protracted loss or impairment of the function of a bodily member, organ, or mental faculty.

(4) FALSE STATEMENTS.—Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both.

(5) TREATMENT OF SINGLE OPERATIONAL UPSET.—For purposes of this subsection, a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation.

(6) RESPONSIBLE CORPORATE OFFICER AS "PERSON".—For the purpose of this subsection, the term "person" means, in addition to the definition contained in section 502(5) of this Act, any responsible corporate officer.

(7) HAZARDOUS SUBSTANCE DEFINED.—For the purpose of this subsection, the term "hazardous substance" means (A) any substance designated pursuant to section 311(b)(2)(A) of this Act, (B) any element, compound, mixture, solution, or substance designated pursuant to section 102 of the Comprehen-

sive Environmental Response, Compensation, and Liability Act of 1980, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress), (D) any toxic pollutant listed under section 307(a) of this Act, and (E) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act.

(d) Any person who violates section 301, 302, 306, 307, 308, 311(b)(3), 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator, or by a State, or in a permit issued under section 404 of this Act by a State,,[1] or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of this Act, and any person who violates any order issued by the Administrator under subsection (a) of this section, shall be subject to a civil penalty not to exceed $25,000 per day for each violation. In determining the amount of a civil penalty the court shall consider the seriousness of the violation or violations, the economic benefit (if any) resulting from the violation, any history of such violations, any good-faith efforts to comply with the applicable requirements, the economic impact of the penalty on the violator, and such other matters as justice may require. For purposes of this subsection, a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation.

(e) Whenever a municipality is a party to a civil action brought by the United States under this section, the State in which such municipality is located shall be joined as a party. Such State shall be liable for payment of any judgment, or any expenses incurred as a result of complying with any judgment, entered against the municipality in such action to the extent that the laws of that State prevent the municipality from raising revenues needed to comply with such judgment.

(f) Whenever, on the basis of an information available to him, the Administrator finds that an owner or operator of any source is introducing a pollutant into a treatment works in violation of subsection (d) of section 307, the Administrator may notify the owner or operator of such treatment works and the State of such violation. If the owner or operator of the treatment works does not commence appropriate enforcement action within 30 days of the date of such notification, the Administrator may commence a civil action for appropriate relief, including but not limited to, a permanent or temporary injunction, against the owner or operator of such treatment works. In any such civil action the Administrator shall join the owner or operator of such source as a party to the action. Such action shall be brought in the district court of the United States in the district in which the treatment works is located. Such court shall have jurisdiction to restrain such violation and to require the owner or operator of the treatment works and the owner or oper-

[1] So in law. See P.L. 100–4, sec. 313(a)(1), 101 Stat. 45.

ator of the source to take such action as may be necessary to come into compliance with this Act. Notice of commencement of any such action shall be given to the State. Nothing in this subsection shall be construed to limit or prohibit any other authority the Administrator may have under this Act.

(g) ADMINISTRATIVE PENALTIES.—

(1) VIOLATIONS.—Whenever on the basis of any information available—

(A) the Administrator finds that any person has violated section 301, 302, 306, 307, 308, 318, or 405 of this Act, or has violated any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator or by a State, or in a permit issued under section 404 by a State, or

(B) the Secretary of the Army (hereinafter in this subsection referred to as the "Secretary") finds that any person has violated any permit condition or limitation in a permit issued under section 404 of this Act by the Secretary,

the Administrator or Secretary, as the case may be, may, after consultation with the State in which the violation occurs, assess a class I civil penalty or a class II civil penalty under this subsection.

(2) CLASSES OF PENALTIES.—

(A) CLASS I.—The amount of a class I civil penalty under paragraph (1) may not exceed $10,000 per violation, except that the maximum amount of any class I civil penalty under this subparagraph shall not exceed $25,000. Before issuing an order assessing a civil penalty under this subparagraph, the Administrator or the Secretary, as the case may be, shall give to the person to be assessed such penalty written notice of the Administrator's or Secretary's proposal to issue such order and the opportunity to request, within 30 days of the date the notice is received by such person, a hearing on the proposed order. Such hearing shall not be subject to section 554 or 556 of title 5, United States Code, but shall provide a reasonable opportunity to be heard and to represent evidence.

(B) CLASS II.—The amount of a class II civil penalty under paragraph (1) may not exceed $10,000 per day for each day during which the violation continues; except that the maximum amount of any class II civil penalty under this subparagraph shall not exceed $125,000. Except as otherwise provided in this subsection, a class II civil penalty shall be assessed and collected in the same manner, and subject to the same provisions, as in the case of civil penalties assessed and collected after notice and opportunity for a hearing on the record in accordance with section 554 of title 5, United States Code. The Administrator and the Secretary may issue rules for discovery procedures for hearings under this subparagraph.

(3) DETERMINING AMOUNT.—In determining the amount of any penalty assessed under this subsection, the Administrator or the Secretary, as the case may be, shall take into account

the nature, circumstances, extent and gravity of the violation, or violations, and, with respect to the violator, ability to pay, any prior history of such violations, the degree of culpability, economic benefit or savings (if any) resulting from the violation, and such other matters as justice may require. For purposes of this subsection, a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation.

(4) RIGHTS OF INTERESTED PERSONS.—

(A) PUBLIC NOTICE.—Before issuing an order assessing a civil penalty under this subsection the Administrator or Secretary, as the case may be, shall provide public notice of and reasonable opportunity to comment on the proposed issuance of such order.

(B) PRESENTATION OF EVIDENCE.—Any person who comments on a proposed assessment of a penalty under this subsection shall be given notice of any hearing held under this subsection and of the order assessing such penalty. In any hearing held under this subsection, such person shall have a reasonable opportunity to be heard and to present evidence.

(C) RIGHTS OF INTERESTED PERSONS TO A HEARING.—If no hearing is held under paragraph (2) before issuance of an order assessing a penalty under this subsection, any person who commented on the proposed assessment may petition, within 30 days after the issuance of such order, the Administrator or Secretary, as the case may be, to set aside such order and to provide a hearing on the penalty. If the evidence presented by the petitioner in support of the petition is material and was not considered in the issuance of the order, the Administrator or Secretary shall immediately set aside such order and provide a hearing in accordance with paragraph (2)(A) in the case of a class I civil penalty and paragraph (2)(B) in the case of a class II civil penalty. If the Administrator or Secretary denies a hearing under this subparagraph, the Administrator or Secretary shall provide to the petitioner, and publish in the Federal Register, notice of and the reasons for such denial.

(5) FINALITY OF ORDER.—An order issued under this subsection shall become final 30 days after its issuance unless a petition for judicial review is filed under paragraph (8) or a hearing is requested under paragraph (4)(C). If such a hearing is denied, such order shall become final 30 days after such denial.

(6) EFFECT OF ORDER.—

(A) LIMITATION ON ACTIONS UNDER OTHER SECTIONS.—Action taken by the Administrator or the Secretary, as the case may be, under this subsection shall not affect or limit the Administrator's or Secretary's authority to enforce any provision of this Act; except that any violation—

(i) with respect to which the Administrator or the Secretary has commenced and is diligently prosecuting an action under this subsection,

(ii) with respect to which a State has commenced and is diligently prosecuting an action under a State law comparable to this subsection, or

(iii) for which the Administrator, the Secretary, or the State has issued a final order not subject to further judicial review and the violator has paid a penalty assessed under this subsection, or such comparable State law, as the case may be,

shall not be the subject of a civil penalty action under subsection (d) of this section or section 311(b) or section 505 of this Act.

(B) APPLICABILITY OF LIMITATION WITH RESPECT TO CITIZEN SUITS.—The limitations contained in subparagraph (A) on civil penalty actions under section 505 of this Act shall not apply with respect to any violation for which—

(i) a civil action under section 505(a)(1) of this Act has been filed prior to commencement of an action under this subsection, or

(ii) notice of an alleged violation of section 505(a)(1) of this Act has been given in accordance with section 505(b)(1)(A) prior to commencement of an action under this subsection and an action under section 505(a)(1) with respect to such alleged violation is filed before the 120th day after the date on which such notice is given.

(7) EFFECT OF ACTION ON COMPLIANCE.—No action by the Administrator or the Secretary under this subsection shall affect any person's obligation to comply with any section of this Act or with the terms and conditions of any permit issued pursuant to section 402 or 404 of this Act.

(8) JUDICIAL REVIEW.—Any person against whom a civil penalty is assessed under this subsection or who commented on the proposed assessment of such penalty in accordance with paragraph (4) may obtain review of such assessment—

(A) in the case of assessment of a class I civil penalty, in the United States District Court for the District of Columbia or in the district in which the violation is alleged to have occurred, or

(B) in the case of assessment of a class II civil penalty, in United States Court of Appeals for the District of Columbia Circuit or for any other circuit in which such person resides or transacts business,

by filing a notice of appeal in such court within the 30-day period beginning on the date the civil penalty order is issued and by simultaneously sending a copy of such notice by certified mail to the Administrator or the Secretary, as the case may be, and the Attorney General. The Administrator or the Secretary shall promptly file in such court a certified copy of the record on which the order was issued. Such court shall not set aside or remand such order unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the Administrator's or Secretary's assessment of the penalty constitutes an abuse of discretion and shall not impose additional civil penalties for the same violation unless

the Administrator's or Secretary's assessment of the penalty constitutes an abuse of discretion.

(9) COLLECTION.—If any person fails to pay an assessment of a civil penalty—

(A) after the order making the assessment has become final, or

(B) after a court in an action brought under paragraph (8) has entered a final judgment in favor of the Administrator or the Secretary, as the case may be,

the Administrator or the Secretary shall request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus interest at currently prevailing rates from the date of the final order or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of such penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty as described in the first sentence of this paragraph shall be required to pay, in addition to such amount and interest, attorneys fees and costs for collection proceedings and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be in an amount equal to 20 percent of the aggregate amount of such person's penalties and nonpayment penalties which are unpaid as of the beginning of such quarter.

(10) SUBPOENAS.—The Administrator or Secretary, as the case may be, may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, or documents in connection with hearings under this subsection. In case of contumacy or refusal to obey a subpoena issued pursuant to this paragraph and served upon any person, the district court of the United States for any district in which such person is found, resides, or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the administrative law judge or to appear and produce documents before the administrative law judge, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(11) PROTECTION OF EXISTING PROCEDURES.—Nothing in this subsection shall change the procedures existing on the day before the date of the enactment of the Water Quality Act of 1987 under other subsections of this section for issuance and enforcement of orders by the Administrator.

(33 U.S.C. 1319)

INTERNATIONAL POLLUTION ABATEMENT

SEC. 310. (a) Whenever the Administrator, upon receipts of reports, surveys, or studies from any duly constituted international agency, has reason to believe that pollution is occurring which endangers the health or welfare of persons in a foreign country, and the Secretary of State requests him to abate such pollution, he

shall give formal notification thereof to the State water pollution control agency of the State or States in which such discharge or discharges originate and to the appropriate interstate agency, if any. He shall also promptly call such a hearing, if he believes that such pollution is occurring in sufficient quantity to warrant such action, and if such foreign country has given the United States essentially the same rights with respect to the prevention and control of pollution occurring in that country as is given that country by this subsection. The Administrator, through the Secretary of State, shall invite the foreign country which may be adversely affected by the pollution to attend and participate in the hearing, and the representative of such country shall, for the purpose of the hearing and any further proceeding resulting from such hearing, have all the rights of a State water pollution control agency. Nothing in this subsection shall be construed to modify, amend, repeal, or otherwise affect the provisions of the 1909 Boundary Waters Treaty between Canada and the United States or the Water Utilization Treaty of 1944 between Mexico and the United States (59 Stat. 1219), relative to the control and abatement of pollution in waters covered by those treaties.

(b) The calling of a hearing under this section shall not be construed by the courts, the Administrator, or any person as limiting, modifying, or otherwise affecting the functions and responsibilities of the Administrator under this section to establish and enforce water quality requirements under this Act.

(c) The Administrator shall publish in the Federal Register a notice of a public hearing before a hearing board of five or more persons appointed by the Administrator. A majority of the members of the board and the chairman who shall be designated by the Administrator shall not be officers or employees of Federal, State, or local governments. On the basis of the evidence presented at such hearing, the board shall within sixty days after completion of the hearing make findings of fact as to whether or not such pollution is occurring and shall thereupon by decision, incorporating its findings therein, make such recommendations to abate the pollution as may be appropriate and shall transmit such decision and the record of the hearings to the Administrator. All such decisions shall be public. Upon receipt of such decision, the Administrator shall promptly implement the board's decision in accordance with the provisions of this Act.

(d) In connection with any hearing called under this subsection, the board is authorized to require any persons whose alleged activities result in discharges causing or contributing to pollution to file with it in such forms as it may prescribe, a report based on existing data, furnishing such information as may reasonably be required as to the character, kind, and quantity of such discharges and the use of facilities or other means to prevent or reduce such discharges by the person filing such a report. Such report shall be made under oath or otherwise, as the board may prescribe, and shall be filed with the board within such reasonable period as it may prescribe, unless additional time is granted by it. Upon a showing satisfactory to the board by the person filing such report that such report or portion thereof (other than effluent data), to which the Adminsitrator has access under this section, if

made public would divulge trade secrets or secret processes of such person, the board shall consider such report or portion thereof confidential for the purposes of section 1905 of title 18 of the United States Code. If any person required to file any report under this paragraph shall fail to do so within the time fixed by the board for filing the same, and such failure shall continue for thirty days after notice of such default, such person shall forfeit to the United States the sum of $1,000 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States in the district court of the United States where such person has his principal office or in any district in which he does business. The Administrator may upon application therefor remit or mitigate any forfeiture provided for under this subsection.

(e) Board members, other than officers or employees of Federal, State, or local governments, shall be for each day (including traveltime) during which they are performing board business, entitled to receive compensation at a rate fixed by the Administrator but not in excess of the maximum rate of pay for grade GS–18, as provided in the General Schedule under section 5332 of title 5 of the United States Code, and shall, notwithstanding the limitations of sections 5703 and 5704 of title 5 of the United States Code, be fully reimbursed for travel, subsistence, and related expenses.

(f) When any such recommendation adopted by the Administrator involves the institution of enforcement proceedings against any person to obtain the abatement of pollution subject to such recommendation, the Administrator shall institute such proceedings if he believes that the evidence warrants such proceedings. The district court of the United States shall consider and determine de novo all relevant issues, but shall receive in evidence the record of the proceedings before the conference or hearing board. The court shall have jurisdiction to enter such judgment and orders enforcing such judgment as it deems appropriate or to remand such proceedings to the Administrator for such further action as it may direct.

(33 U.S.C. 1320)

OIL AND HAZARDOUS SUBSTANCE LIABILITY

SEC. 311. (a) For the purpose of this section, the term—

(1) "oil" means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil;

(2) "discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping, but excludes (A) discharges in compliance with a permit under section 402 of this Act, (B) discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of this Act, and subject to a condition in such permit, ,(C)[1] continuous or anticipated intermittent discharges from a point source, identified in a permit or permit applica-

[1] So in law.

tion under section 402 of this Act, which are caused by events occurring within the scope of relevant operating or treatment systems, and (D) discharges incidental to mechanical removal authorized by the President under subsection (c) of this section;

(3) "vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

(4) "public vessel" means a vessel owned or bareboat-chartered and operated by the United States, or by a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce;

(5) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands;

(6) "owner or operator" means (A) in the case of a vessel, any person owning, operating, or chartering by demise, such vessel, and (B) in the case of an onshore facility, and an offshore facility, any person owning or operating such onshore facility or offshore facility, and (C) in the case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment;

(7) "person" includes an individual, firm, corporation, association, and a partnership;

(8) "remove" or "removal" refers to containment and removal of the oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches;

(9) "contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention on the Territorial Sea and the Contiguous Zone;

(10) "onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

(11) "offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

(12) "act of God" means an act occasioned by an unanticipated grave natural disaster;

(13) "barrel" means 42 United States gallons at 60 degrees Fahrenheit;

(14) "hazardous substance" means any substance designated pursuant to subsection (b)(2) of this section;

(15) "inland oil barge" means a non-self-propelled vessel carrying oil in bulk as cargo and certificated to operate only in the inland waters of the United States, while operating in such waters;

(16) "inland waters of the United States" means those waters of the United States lying inside the baseline from which the territorial sea is measured and those water outside such baseline which are a part of the Gulf Intracoastal Waterway;

(17) "otherwise" subject to the jurisdiction of the United States" means subject to the jurisdiction of the United States by virtue of United States citizenship, United States vessel documentation or numbering, or as provided for by international agreement to which the United States is a party;

(18) "Area Committee" means an Area Committee established under subsection (j);

(19) "Area Contingency Plan" means an Area Contingency Plan prepared under subsection (j);

(20) "Coast Guard District Response Group" means a Coast Guard District Response Group established under subsection (j);

(21) "Federal On-Scene Coordinator" means a Federal On-Scene Coordinator designated in the National Contingency Plan;

(22) "National Contingency Plan" means the National Contingency Plan prepared and published under subsection (d);

(23) "National Response Unit" means the National Response Unit established under subsection (j);

(24) "worst case discharge" means—

(A) in the case of a vessel, a discharge in adverse weather conditions of its entire cargo; and

(B) in the case of an offshore facility or onshore facility, the largest foreseeable discharge in adverse weather conditions; and

(25) "removal costs" means—

(A) the costs of removal of oil or a hazardous substance that are incurred after it is discharged; and

(B) in any case in which there is a substantial threat of a discharge of oil or a hazardous substance, the costs to prevent, minimize, or mitigate that threat.

(b)(1) The Congress hereby declares that it is the policy of the United States that there should be no discharges of oil or hazardous substances into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

(2)(A) The Administrator shall develop, promulgate, and revise as may be appropriate, regulations designating as hazardous substances, other than oil as defined in this section, such elements and compounds which, when discharged in any quantity into or upon the navigable waters of the United States or adjoining shorelines or the waters of the contiguous zone or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority

of the United States (including resources under the Fishery Conservation and Management Act of 1976), present an imminent and substantial danger to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, shorelines, and beaches.

(B) The Administrator shall within 18 months after the date of enactment of this paragraph, conduct a study and report to the Congress on methods, mechanisms, and procedures to create incentives to achieve a higher standard of care in all aspects of the management and movement of hazardous substances on the part of owners, operators, or persons in charge of onshore facilities, offshore facilities, or vessels. The Administrator shall include in such study (1) limits of liability, (2) liability for third party damages, (3) penalties and fees, (4) spill prevention plans, (5) current practices in the insurance and banking industries, and (6) whether the penalty enacted in subclause (bb) of clause (iii) of subparagraph (B) of subsection (b)(2) of section 311 of Public Law 92–500 should be enacted.

(3) The discharge of oil or hazardous substances (i) into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, or (ii) in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976), in such quantities as may be harmful as determined by the President under paragraph (4) of this subsection, is prohibited, except (A) in the case of such discharges into the waters of the contiguous zone or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976), where permitted under the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, and (B) where permitted in quantities and at times and locations or under such circumstances or conditions as the President may, by regulation, determine not to be harmful. Any regulations issued under this subsection shall be consistent with maritime safety and with marine and navigation laws and regulations and applicable water quality standards.

(4) The President shall by regulation determine for the purposes of this section those quantities of oil and any hazardous substances the discharge of which may be harmful to the public health or welfare or the environment of the United States, including but not limited to fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

(5) Any person in charge of a vessel or of an onshore facility or an offshore facility shall, as soon as he has knowledge of any discharge of oil or a hazardous substance from such vessel or facility in violation of paragraph (3) of this subsection, immediately notify the appropriate agency of the United States Government of such discharge. The Federal agency shall immediately notify the appropriate State agency of any State which is, or may reasonably be expected to be, affected by the discharge of oil or a hazardous substance. Any such person (A) in charge of a vessel from which

oil or a hazardous substance is discharged in violation of pragraph (3)(i) of this subsection, or (B) in charge of a vessel from which oil or a hazardous substance is discharged in violation of paragraph (3)(ii) of this subsection and who is otherwise subject to the jurisdiction of the United States at the time of the discharge, or (C) in charge of an onshore facility or an offshore facility, who fails to notify immediately such agency of such discharge shall, upon conviction, be fined in accordance with title 18, United States Code, or imprisoned for not more than 5 years, or both. Notification received pursuant to this paragraph shall not be used against any such natural person in any criminal case, except a prosecution for perjury or for giving a false statement.

(6) ADMINISTRATIVE PENALTIES.—

(A) VIOLATIONS.—Any owner, operator, or person in charge of any vessel, onshore facility, or offshore facility—

(i) from which oil or a hazardous substance is discharged in violation of paragraph (3), or

(ii) who fails or refuses to comply with any regulation issued under subsection (j) to which that owner, operator, or person in charge is subject,

may be assessed a class I or class II civil penalty by the Secretary of the department in which the Coast Guard is operating or the Administrator.

(B) CLASSES OF PENALTIES.—

(i) CLASS I.—The amount of a class I civil penalty under subparagraph (A) may not exceed $10,000 per violation, except that the maximum amount of any class I civil penalty under this subparagraph shall not exceed $25,000. Before assessing a civil penalty under this clause, the Administrator or Secretary, as the case may be, shall give to the person to be assessed such penalty written notice of the Administrator's or Secretary's proposal to assess the penalty and the opportunity to request, within 30 days of the date the notice is received by such person, a hearing on the proposed penalty. Such hearing shall not be subject to section 554 or 556 of title 5, United States Code, but shall provide a reasonable opportunity to be heard and to present evidence.

(ii) CLASS II.—The amount of a class II civil penalty under subparagraph (A) may not exceed $10,000 per day for each day during which the violation continues; except that the maximum amount of any class II civil penalty under this subparagraph shall not exceed $125,000. Except as otherwise provided in this subsection, a class II civil penalty shall be assessed and collected in the same manner, and subject to the same provisions, as in the case of civil penalties assessed and collected after notice and opportunity for a hearing on the record in accordance with section 554 of title 5, United States Code. The Administrator and Secretary may issue rules for discovery procedures for hearings under this paragraph.

(C) RIGHTS OF INTERESTED PERSONS.—

(i) PUBLIC NOTICE.—Before issuing an order assessing a class II civil penalty under this paragraph the Administrator or Secretary, as the case may be, shall provide public notice of and reasonable opportunity to comment on the proposed issuance of such order.

(ii) PRESENTATION OF EVIDENCE.—Any person who comments on a proposed assessment of a class II civil penalty under this paragraph shall be given notice of any hearing held under this paragraph and of the order assessing such penalty. In any hearing held under this paragraph, such person shall have a reasonable opportunity to be heard and to present evidence.

(iii) RIGHTS OF INTERESTED PERSONS TO A HEARING.—If no hearing is held under subparagraph (B) before issuance of an order assessing a class II civil penalty under this paragraph, any person who commented on the proposed assessment may petition, within 30 days after the issuance of such order, the Administrator or Secretary, as the case may be, to set aside such order and to provide a hearing on the penalty. If the evidence presented by the petitioner in support of the petition is material and was not considered in the issuance of the order, the Administrator or Secretary shall immediately set aside such order and provide a hearing in accordance with subparagraph (B)(ii). If the Administrator or Secretary denies a hearing under this clause, the Administrator or Secretary shall provide to the petitioner, and publish in the Federal Register, notice of and the reasons for such denial.

(D) FINALITY OF ORDER.—An order assessing a class II civil penalty under this paragraph shall become final 30 days after its issuance unless a petition for judicial review is filed under subparagraph (G) or a hearing is requested under subparagraph (C)(iii). If such a hearing is denied, such order shall become final 30 days after such denial.

(E) EFFECT OF ORDER.—Action taken by the Administrator or Secretary, as the case may be, under this paragraph shall not affect or limit the Administrator's or Secretary's authority to enforce any provision of this Act; except that any violation—

(i) with respect to which the Administrator or Secretary has commenced and is diligently prosecuting an action to assess a class II civil penalty under this paragraph, or

(ii) for which the Administrator or Secretary has issued a final order assessing a class II civil penalty not subject to further judicial review and the violator has paid a penalty assessed under this paragraph,

shall not be the subject of a civil penalty action under section 309(d), 309(g), or 505 of this Act or under paragraph (7).

(F) EFFECT OF ACTION ON COMPLIANCE.—No action by the Administrator or Secretary under this paragraph shall affect any person's obligation to comply with any section of this Act.

(G) JUDICIAL REVIEW.—Any person against whom a civil penalty is assessed under this paragraph or who commented on the proposed assessment of such penalty in accordance with subparagraph (C) may obtain review of such assessment—

(i) in the case of assessment of a class I civil penalty, in the United States District Court for the District of Columbia or in the district in which the violation is alleged to have occurred, or

(ii) in the case of assessment of a class II civil penalty, in United States Court of Appeals for the District of Columbia Circuit or for any other circuit in which such person resides or transacts business,

by filing a notice of appeal in such court within the 30-day period beginning on the date the civil penalty order is issued and by simultaneously sending a copy of such notice by certified mail to the Administrator or Secretary, as the case may be, and the Attorney General. The Administrator or Secretary shall promptly file in such court a certified copy of the record on which the order was issued. Such court shall not set aside or remand such order unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the Administrator's or Secretary's assessment of the penalty constitutes an abuse of discretion and shall not impose additional civil penalties for the same violation unless the Administrator's or Secretary's assessment of the penalty constitutes an abuse of discretion.

(H) COLLECTION.—If any person fails to pay an assessment of a civil penalty—

(i) after the assessment has become final, or

(ii) after a court in an action brought under subparagraph (G) has entered a final judgment in favor of the Administrator or Secretary, as the case may be,

the Administrator or Secretary shall request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus interest at currently prevailing rates from the date of the final order or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of such penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty as described in the first sentence of this subparagraph shall be required to pay, in addition to such amount and interest, attorneys fees and costs for collection proceedings and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be in an amount equal to 20 percent of the aggregate amount of such person's pen-

alties and nonpayment penalties which are unpaid as of the beginning of such quarter.

(I) SUBPOENAS.—The Administrator or Secretary, as the case may be, may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, or documents in connection with hearings under this paragraph. In case of contumacy or refusal to obey a subpoena issued pursuant to this subparagraph and served upon any person, the district court of the United States for any district in which such person is found, resides, or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the administrative law judge or to appear and produce documents before the administrative law judge, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(7) CIVIL PENALTY ACTION.—

(A) DISCHARGE, GENERALLY.—Any person who is the owner, operator, or person in charge of any vessel, onshore facility, or offshore facility from which oil or a hazardous substance is discharged in violation of paragraph (3), shall be subject to a civil penalty in an amount up to $25,000 per day of violation or an amount up to $1,000 per barrel of oil or unit of reportable quantity of hazardous substances discharged.

(B) FAILURE TO REMOVE OR COMPLY.—Any person described in subparagraph (A) who, without sufficient cause—

(i) fails to properly carry out removal of the discharge under an order of the President pursuant to subsection (c); or

(ii) fails to comply with an order pursuant to subsection (e)(1)(B);

shall be subject to a civil penalty in an amount up to $25,000 per day of violation or an amount up to 3 times the costs incurred by the Oil Spill Liability Trust Fund as a result of such failure.

(C) FAILURE TO COMPLY WITH REGULATION.—Any person who fails or refuses to comply with any regulation issued under subsection (j) shall be subject to a civil penalty in an amount up to $25,000 per day of violation.

(D) GROSS NEGLIGENCE.—In any case in which a violation of paragraph (3) was the result of gross negligence or willful misconduct of a person described in subparagraph (A), the person shall be subject to a civil penalty of not less than $100,000, and not more than $3,000 per barrel of oil or unit of reportable quantity of hazardous substance discharged.

(E) JURISDICTION.—An action to impose a civil penalty under this paragraph may be brought in the district court of the United States for the district in which the defendant

is located, resides, or is doing business, and such court shall have jurisdiction to assess such penalty.

(F) LIMITATION.—A person is not liable for a civil penalty under this paragraph for a discharge if the person has been assessed a civil penalty under paragraph (6) for the discharge.

(8) DETERMINATION OF AMOUNT.—In determining the amount of a civil penalty under paragraphs (6) and (7), the Administrator, Secretary, or the court, as the case may be, shall consider the seriousness of the violation or violations, the economic benefit to the violator, if any, resulting from the violation, the degree of culpability involved, any other penalty for the same incident, any history of prior violations, the nature, extent, and degree of success of any efforts of the violator to minimize or mitigate the effects of the discharge, the economic impact of the penalty on the violator, and any other matters as justice may require.

(9) MITIGATION OF DAMAGE.—In addition to establishing a penalty for the discharge of oil or a hazardous substance, the Administrator or the Secretary of the department in which the Coast Guard is operating may act to mitigate the damage to the public health or welfare caused by such discharge. The cost of such mitigation shall be deemed a cost incurred under subsection (c) of this section for the removal of such substance by the United States Government.

(10) RECOVERY OF REMOVAL COSTS.—Any costs of removal incurred in connection with a discharge excluded by subsection (a)(2)(C) of this section shall be recoverable from the owner or operator of the source of the discharge in an action brought under section 309(b) of this Act.

(11) LIMITATION.—Civil penalties shall not be assessed under both this section and section 309 for the same discharge.

(12)[1] WITHHOLDING CLEARANCE.—If any owner, operator, or person in charge of a vessel is liable for a civil penalty under this subsection, or if reasonable cause exists to believe that the owner, operator, or person in charge may be subject to a civil penalty under this subsection, the Secretary of the Treasury, upon the request of the Secretary of the department in which the Coast Guard is operating or the Administrator, shall with respect to such vessel refuse or revoke—

(A) the clearance required by section 4197 of the Revised Statutes of the United States (46 U.S.C. App. 91);

(B) a permit to proceed under section 4367 of the Revised Statutes of the United States (46 U.S.C. App. 313); and

(C) a permit to depart required under section 443 of the Tariff Act of 1930 (19 U.S.C. 1443);

as applicable. Clearance or a permit refused or revoked under this paragraph may be granted upon the filing of a bond or other surety satisfactory to the Secretary of the department in which the Coast Guard is operating or the Administrator.

(c) FEDERAL REMOVAL AUTHORITY.—

[1] Indentation so in law.

(1) GENERAL REMOVAL REQUIREMENT.—(A) The President shall, in accordance with the National Contingency Plan and any appropriate Area Contingency Plan, ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge, of oil or a hazardous substance—

(i) into or on the navigable waters;

(ii) on the adjoining shorelines to the navigable waters;

(iii) into or on the waters of the exclusive economic zone; or

(iv) that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States.

(B) In carrying out this paragraph, the President may—

(i) remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;

(ii) direct or monitor all Federal, State, and private actions to remove a discharge; and

(iii) remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.

(2) DISCHARGE POSING SUBSTANTIAL THREAT TO PUBLIC HEALTH OR WELFARE.—(A) If a discharge, or a substantial threat of a discharge, of oil or a hazardous substance from a vessel, offshore facility, or onshore facility is of such a size or character as to be a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the President shall direct all Federal, State, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge.

(B) In carrying out this paragraph, the President may, without regard to any other provision of law governing contracting procedures or employment of personnel by the Federal Government—

(i) remove or arrange for the removal of the discharge, or mitigate or prevent the substantial threat of the discharge; and

(ii) remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.

(3) ACTIONS IN ACCORDANCE WITH NATIONAL CONTINGENCY PLAN.—(A) Each Federal agency, State, owner or operator, or other person participating in efforts under this subsection shall act in accordance with the National Contingency Plan or as directed by the President.

(B) An owner or operator participating in efforts under this subsection shall act in accordance with the National Contingency Plan and the applicable response plan required under subsection (j), or as directed by the President, except that the owner or operator may deviate from the applicable response

plan if the President or the Federal On-Scene Coordinator determines that deviation from the response plan would provide for a more expeditious or effective response to the spill or mitigation of its environmental effects.

(4) EXEMPTION FROM LIABILITY.—(A) A person is not liable for removal costs or damages which result from actions taken or omitted to be taken in the course of rendering care, assistance, or advice consistent with the National Contingency Plan or as otherwise directed by the President relating to a discharge or a substantial threat of a discharge of oil or a hazardous substance.

(B) Subparagraph (A) does not apply—

(i) to a responsible party;

(ii) to a response under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.);

(iii) with respect to personal injury or wrongful death; or

(iv) if the person is grossly negligent or engages in willful misconduct.

(C) A responsible party is liable for any removal costs and damages that another person is relieved of under subparagraph (A).

(5) OBLIGATION AND LIABILITY OF OWNER OR OPERATOR NOT AFFECTED.—Nothing in this subsection affects—

(A) the obligation of an owner or operator to respond immediately to a discharge, or the threat of a discharge, of oil; or

(B) the liability of a responsible party under the Oil Pollution Act of 1990.

(6) RESPONSIBLE PARTY DEFINED.—For purposes of this subsection, the term "responsible party" has the meaning given that term under section 1001 of the Oil Pollution Act of 1990.

(d) NATIONAL CONTINGENCY PLAN.—

(1) PREPARATION BY PRESIDENT.—The President shall prepare and publish a National Contingency Plan for removal of oil and hazardous substances pursuant to this section.

(2) CONTENTS.—The National Contingency Plan shall provide for efficient, coordinated, and effective action to minimize damage from oil and hazardous substance discharges, including containment, dispersal, and removal of oil and hazardous substances, and shall include, but not be limited to, the following:

(A) Assignment of duties and responsibilities among Federal departments and agencies in coordination with State and local agencies and port authorities including, but not limited to, water pollution control and conservation and trusteeship of natural resources (including conservation of fish and wildlife).

(B) Identification, procurement, maintenance, and storage of equipment and supplies.

(C) Establishment or designation of Coast Guard strike teams, consisting of—

(i) personnel who shall be trained, prepared, and available to provide necessary services to carry out the National Contingency Plan;

(ii) adequate oil and hazardous substance pollution control equipment and material; and

(iii) a detailed oil and hazardous substance pollution and prevention plan, including measures to protect fisheries and wildlife.

(D) A system of surveillance and notice designed to safeguard against as well as ensure earliest possible notice of discharges of oil and hazardous substances and imminent threats of such discharges to the appropriate State and Federal agencies.

(E) Establishment of a national center to provide coordination and direction for operations in carrying out the Plan.

(F) Procedures and techniques to be employed in identifying, containing, dispersing, and removing oil and hazardous substances.

(G) A schedule, prepared in cooperation with the States, identifying—

(i) dispersants, other chemicals, and other spill mitigating devices and substances, if any, that may be used in carrying out the Plan,

(ii) the waters in which such dispersants, other chemicals, and other spill mitigating devices and substances may be used, and

(iii) the quantities of such dispersant, other chemicals, or other spill mitigating device or substance which can be used safely in such waters,

which schedule shall provide in the case of any dispersant, chemical, spill mitigating device or substance, or waters not specifically identified in such schedule that the President, or his delegate, may, on a case-by-case basis, identify the dispersants, other chemicals, and other spill mitigating devices and substances which may be used, the waters in which they may be used, and the quantities which can be used safely in such waters.

(H) A system whereby the State or States affected by a discharge of oil or hazardous substance may act where necessary to remove such discharge and such State or States may be reimbursed in accordance with the Oil Pollution Act of 1990, in the case of any discharge of oil from a vessel or facility, for the reasonable costs incurred for that removal, from the Oil Spill Liability Trust Fund.

(I) Establishment of criteria and procedures to ensure immediate and effective Federal identification of, and response to, a discharge, or the threat of a discharge, that results in a substantial threat to the public health or welfare of the United States, as required under subsection (c)(2).

(J) Establishment of procedures and standards for removing a worst case discharge of oil, and for mitigating or preventing a substantial threat of such a discharge.

(K) Designation of the Federal official who shall be the Federal On-Scene Coordinator for each area for which an Area Contingency Plan is required to be prepared under subsection (j).

(L) Establishment of procedures for the coordination of activities of—

(i) Coast Guard strike teams established under subparagraph (C);

(ii) Federal On-Scene Coordinators designated under subparagraph (K);

(iii) District Response Groups established under subsection (j); and

(iv) Area Committees established under subsection (j).

(M) A fish and wildlife response plan, developed in consultation with the United States Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and other interested parties (including State fish and wildlife conservation officials), for the immediate and effective protection, rescue, and rehabilitation of, and the minimization of risk of damage to, fish and wildlife resources and their habitat that are harmed or that may be jeopardized by a discharge.

(3) REVISIONS AND AMENDMENTS.—The President may, from time to time, as the President deems advisable, revise or otherwise amend the National Contingency Plan.

(4) ACTIONS IN ACCORDANCE WITH NATIONAL CONTINGENCY PLAN.—After publication of the National Contingency Plan, the removal of oil and hazardous substances and actions to minimize damage from oil and hazardous substance discharges shall, to the greatest extent possible, be in accordance with the National Contingency Plan.

(e) CIVIL ENFORCEMENT.—

(1) ORDERS PROTECTING PUBLIC HEALTH.—In addition to any action taken by a State or local government, when the President determines that there may be an imminent and substantial threat to the public health or welfare of the United States, including fish, shellfish, and wildlife, public and private property, shorelines, beaches, habitat, and other living and nonliving natural resources under the jurisdiction or control of the United States, because of an actual or threatened discharge of oil or a hazardous substance from a vessel or facility in violation of subsection (b), the President may—

(A) require the Attorney General to secure any relief from any person, including the owner or operator of the vessel or facility, as may be necessary to abate such endangerment; or

(B) after notice to the affected State, take any other action under this section, including issuing administrative orders, that may be necessary to protect the public health and welfare.

(2) JURISDICTION OF DISTRICT COURTS.—The district courts of the United States shall have jurisdiction to grant any relief

under this subsection that the public interest and the equities of the case may require.

(f)(1) Except where an owner or operator can prove that a discharge was caused solely by (A) an act of God, (B) an act of war, (C) negligence on the part of the United States Government, or (D) an act or omission of a third party without regard to whether any such act or omission was or was not negligent, or any combination of the foregoing clauses, such owner or operator of any vessel from which oil or a hazardous substance is discharged in violation of subsection (b)(3) of this section shall, notwithstanding any other provision of law, be liable to the United States Government for the actual costs incurred under subsection (c) for the removal of such oil or substance by the United States Government in an amount not to exceed, in the case of an inland oil barge $125 per gross ton of such barge, or $125,000, whichever is greater, and in the case of any other vessel, $150 per gross ton of such vessel (or, for a vessel carrying oil or hazardous substances as cargo, $250,000), whichever is greater, except that where the United States can show that such discharge was the result of willful negligence or willful misconduct within the privity and knowledge of the owner, such owner or operator shall be liable to the United States Government for the full amount of such costs. Such costs shall constitute a maritime lien on such vessel which may be recovered in an action in rem in the district court of the United States for any district within which any vessel may be found. The United States may also bring an action against the owner or operator of such vessel in any court of competent jurisdiction to recover such costs.

(2) Except where an owner or operator of an onshore facility can prove that a discharge was caused solely by (A) an act of God, (B) an act of war, (C) negligence on the part of the United States Government, or (D) an act or omission of a third party without regard to whether any such act or omission was or was not negligent, or any combination of the foregoing clauses, such owner or operator of any such facility from which oil or a hazardous substance is discharged in violation of subsection (b)(3) of this section shall be liable to the United States Government for the actual costs incurred under subsection (c) for the removal of such oil or substance by the United States Government in an amount not to exceed $50,000,000, except that where the United States can show that such discharge was the result of willful negligence or willful misconduct within the privity and knowledge of the owner, such owner or operator shall be liable to the United States Government for the full amount of such costs. The United States may bring an action against the owner or operator of such facility in any court of competent jurisdiction to recover such costs. The Administrator is authorized, by regulation, after consultation with the Secretary of Commerce and the Small Business Administration, to establish reasonable and equitable classifications, of those onshore facilities having a total fixed storage capacity of 1,000 barrels or less which he determines because of size, type, and location do not present a substantial risk of the discharge of oil or hazardous substance in violation of subsection (b)(3) of this section, and apply with respect to such classifications differing limits of liability which may be less than the amount contained in this paragraph.

(3) Except where an owner or operator of an onshore facility can prove that a discharge was caused solely by (A) an act of God, (B) an act of war, (C) negligence on the part of the United States Government, or (D) an act or omission of a third party without regard to whether any such act or omission was or was not negligent, or any combination of the foregoing clauses, such owner or operator of any such facility from which oil or a hazardous substance is discharged in violation of subsection (b)(3) of this section shall, notwithstanding any other provision of law, be liable to the United States Government for the actual costs incurred under subsection (c) for the removal of such oil or substance by the United States Government in an amount not to exceed $50,000,000, except that where the United States can show that such discharge was the result of willful negligence or willful misconduct within the privity and knowledge of the owner, such owner or operator shall be liable to the United States Government for the full amount of such costs. The United States may bring an action against the owner or operator of such facility in any court of competent jurisdiction to recover such costs.

(4) The costs of removal of oil or a hazardous substance for which the owner or operator of a vessel or onshore or offshore facility is liable under subsection (f) of this section shall include any costs or expenses incurred by the Federal Government or any State government in the restoration or replacement of natural resources damaged or destroyed as a result of a discharge of oil or a hazardous substance in violation of subsection (b) of this section.

(5) The President, or the authorized representative of any State, shall act on behalf of the public as trustee of the natural resources to recover for the costs of replacing or restoring such resources. Sums recovered shall be used to restore, rehabilitate, or acquire the equivalent of such natural resources by the appropriate agencies of the Federal Government, or the State government.

(g) Where the owner or operator of a vessel (other than an inland oil barge) carrying oil or hazardous substances as cargo or an onshore or offshore facility which handles or stores oil or hazardous substances in bulk, from which oil or a hazardous substance is discharged in violation of subsection (b) of this section, alleges that such discharge was caused solely by an act or omission of a third party, such owner or operator shall pay to the United States Government the actual costs incurred under subsection (c) for removal of such oil or substance and shall be entitled by subrogation to all rights of the United States Government to recover such costs from such third party under this subsection. In any case where an owner or operator of a vessel, of an onshore facility, or of an offshore facility, from which oil or a hazardous substance is discharged in violation of subsection (b)(3) of this section, proves that such discharge of oil or hazardous substance was caused solely by an act or omission of a third party, or was caused solely by such an act or omission in combination with an act of God, an act of war, or negligence on the part of the United States Government, such third party shall, not withstanding any other provision of law, be liable to the United States Government for the actual costs incurred under subsection (c) for removal of such oil or substance by the United States Government, except where such third party can prove that such

discharge was caused solely by (A) an act of God, (B) an act of war, (C) negligence on the part of the United States Government, or (D) an act or omission of another party without regard to whether such an act or omission was or was not negligent, or any combination of the foregoing clauses. If such third party was the owner or operator of a vessel which caused the discharge of oil or a hazardous substance in violation of subsection (b)(3) of this section, the liability of such third party under this subsection shall not exceed, in the case of an inland oil barge $125 per gross ton of such barge, $125,000, whichever is greater, and in the case of any other vessel, $150 per gross ton of such vessel (or, for a vessel carrying oil or hazardous substances as cargo, $250,000), whichever is greater. In any other case the liability of such third party shall not exceed the limitation which would have been applicable to the owner or operator of the vessel or the onshore or offshore facility from which the discharge actually occurred if such owner or operator were liable. If the United States can show that the discharge of oil or a hazardous substance in violation of subsection (b)(3) of this section was the result of willful negligence or willful misconduct within the privity and knowledge of such third party, such third party shall be liable to the United States Government for the full amount of such removal costs. The United States may bring an action against the third party in any court of competent jurisdiction to recover such removal costs.

(h) The liabilities established by this section shall in no way affect any rights which (1) the owner or operator of a vessel or of an onshore facility or an offshore facility may have against any third party whose acts may in any way have caused or contributed to such discharge, or (2) The [1] United States Government may have against any third party whose actions may in any way have caused or contributed to the discharge of oil or hazardous substance.

(i) In any case where an owner or operator of a vessel or an onshore facility or an offshore facility from which oil or a hazardous substance is discharged in violation of subsection (b)(3) of this section acts to remove such oil or substance in accordance with regulations promulgated pursuant to this section, such owner or operator shall be entitled to recover the reasonable costs incurred in such removal upon establishing, in a suit which may be brought against the United States Government in the United States Claims Court, that such discharge was caused solely by (A) an act of God, (B) an act of war, (C) negligence on the part of the United States Government, or (D) an act or omission of a third party without regard to whether such act or omission was or was not negligent, or of any combination of the foregoing clauses.

(j) NATIONAL RESPONSE SYSTEM.—

(1) IN GENERAL.—Consistent with the National Contingency Plan required by subsection (c)(2) of this section, as soon as practicable after the effective date of this section, and from time to time thereafter, the President shall issue regulations consistent with maritime safety and with marine and navigation laws (A) establishing methods and procedures for removal of discharged oil and hazardous substances, (B) establishing

[1] So in law. Should not be capitalized.

criteria for the development and implementation of local and regional oil and hazardous substance removal contingency plans, (C) establishing procedures, methods, and equipment and other requirements for equipment to prevent discharges of oil and hazardous substances from vessels and from onshore facilities and offshore facilities, and to contain such discharges, and (D) governing the inspection of vessels carrying cargoes of oil and hazardous substances and the inspection of such cargoes in order to reduce the likelihood of discharges of oil from vessels in violation of this section.

(2) NATIONAL RESPONSE UNIT.—The Secretary of the department in which the Coast Guard is operating shall establish a National Response Unit at Elizabeth City, North Carolina. The Secretary, acting through the National Response Unit—

(A) shall compile and maintain a comprehensive computer list of spill removal resources, personnel, and equipment that is available worldwide and within the areas designated by the President pursuant to paragraph (4), and of information regarding previous spills, including data from universities, research institutions, State governments, and other nations, as appropriate, which shall be disseminated as appropriate to response groups and area committees, and which shall be available to Federal and State agencies and the public;

(B) shall provide technical assistance, equipment, and other resources requested by a Federal On-Scene Coordinator;

(C) shall coordinate use of private and public personnel and equipment to remove a worst case discharge, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President pursuant to paragraph (4);

(D) may provide technical assistance in the preparation of Area Contingency Plans required under paragraph (4);

(E) shall administer Coast Guard strike teams established under the National Contingency Plan;

(F) shall maintain on file all Area Contingency Plans approved by the President under this subsection; and

(G) shall review each of those plans that affects its responsibilities under this subsection.

(3) COAST GUARD DISTRICT RESPONSE GROUPS.—(A) The Secretary of the department in which the Coast Guard is operating shall establish in each Coast Guard district a Coast Guard District Response Group.

(B) Each Coast Guard District Response Group shall consist of—

(i) the Coast Guard personnel and equipment, including firefighting equipment, of each port within the district;

(ii) additional prepositioned equipment; and

(iii) a district response advisory staff.

(C) Coast Guard district response groups—

(i) shall provide technical assistance, equipment, and other resources when required by a Federal On-Scene Coordinator;

(ii) shall maintain all Coast Guard response equipment within its district;

(iii) may provide technical assistance in the preparation of Area Contingency Plans required under paragraph (4); and

(iv) shall review each of those plans that affect its area of geographic responsibility.

(4) AREA COMMITTEES AND AREA CONTINGENCY PLANS.—(A) There is established for each area designated by the President an Area Committee comprised of members appointed by the President from qualified personnel of Federal, State, and local agencies.

(B) Each Area Committee, under the direction of the Federal On-Scene Coordinator for its area, shall—

(i) prepare for its area the Area Contingency Plan required under subparagraph (C);

(ii) work with State and local officials to enhance the contingency planning of those officials and to assure preplanning of joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife; and

(iii) work with State and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

(C) Each Area Committee shall prepare and submit to the President for approval an Area Contingency Plan for its area. The Area Contingency Plan shall—

(i) when implemented in conjunction with the National Contingency Plan, be adequate to remove a worst case discharge, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the area;

(ii) describe the area covered by the plan, including the areas of special economic or environmental importance that might be damaged by a discharge;

(iii) describe in detail the responsibilities of an owner or operator and of Federal, State, and local agencies in removing a discharge, and in mitigating or preventing a substantial threat of a discharge;

(iv) list the equipment (including firefighting equipment), dispersants or other mitigating substances and devices, and personnel available to an owner or operator and Federal, State, and local agencies, to ensure an effective and immediate removal of a discharge, and to ensure mitigation or prevention of a substantial threat of a discharge;

(v) compile a list of local scientists, both inside and outside Federal Government service, with expertise in the environmental effects of spills of the types of oil typically transported in the area, who may be contacted to provide

information or, where appropriate, participate in meetings of the scientific support team convened in response to a spill, and describe the procedures to be followed for obtaining an expedited decision regarding the use of dispersants;

(vi) describe in detail how the plan is integrated into other Area Contingency Plans and vessel, offshore facility, and onshore facility response plans approved under this subsection, and into operating procedures of the National Response Unit;

(vii) include any other information the President requires; and

(viii) be updated periodically by the Area Committee.

(D) The President shall—

(i) review and approve Area Contingency Plans under this paragraph; and

(ii) periodically review Area Contingency Plans so approved.

(5) TANK VESSEL AND FACILITY RESPONSE PLANS.—(A) The President shall issue regulations which require an owner or operator of a tank vessel or facility described in subparagraph (B) to prepare and submit to the President a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance.

(B) The tank vessels and facilities referred to in subparagraph (A) are the following:

(i) A tank vessel, as defined under section 2101 of title 46, United States Code.

(ii) An offshore facility.

(iii) An onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters, adjoining shorelines, or the exclusive economic zone.

(C) A response plan required under this paragraph shall—

(i) be consistent with the requirements of the National Contingency Plan and Area Contingency Plans;

(ii) identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Federal official and the persons providing personnel and equipment pursuant to clause (iii);

(iii) identify, and ensure by contract or other means approved by the President the availability of, private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;

(iv) describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility, to be carried out under the plan to ensure the safety of the vessel or facility and to mitigate or prevent the discharge, or the substantial threat of a discharge;

(v) be updated periodically; and

(vi) be resubmitted for approval of each significant change.

(D) With respect to any response plan submitted under this paragraph for an onshore facility that, because of its location, could reasonably be expected to cause significant and substantial harm to the environment by discharging into or on the navigable waters or adjoining shorelines or the exclusive economic zone, and with respect to each response plan submitted under this paragraph for a tank vessel or offshore facility, the President shall—

(i) promptly review such response plan;

(ii) require amendments to any plan that does not meet the requirements of this paragraph;

(iii) approve any plan that meets the requirements of this paragraph; and

(iv) review each plan periodically thereafter.

(E)[1] A tank vessel, offshore facility, or onshore facility required to prepare a response plan under this subsection may not handle, store, or transport oil unless—

(i) in the case of a tank vessel, offshore facility, or onshore facility for which a response plan is reviewed by the President under subparagraph (D), the plan has been approved by the President; and

(ii) the vessel or facility is operating in compliance with the plan.

(F) Notwithstanding subparagraph (E), the President may authorize a tank vessel, offshore facility, or onshore facility to operate without a response plan approved under this paragraph, until not later than 2 years after the date of the submission to the President of a plan for the tank vessel or facility, if the owner or operator certifies that the owner or operator has ensured by contract or other means approved by the President the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or a substantial threat of such a discharge.

(G) The owner or operator of a tank vessel, offshore facility, or onshore facility may not claim as a defense to liability under title I of the Oil Pollution Act of 1990 that the owner or operator was acting in accordance with an approved response plan.

(H) The Secretary shall maintain, in the Vessel Identification System established under chapter 125 of title 46, United States Code, the dates of approval and review of a response plan under this paragraph for each tank vessel that is a vessel of the United States.

(6) EQUIPMENT REQUIREMENTS AND INSPECTION.—Not later than 2 years after the date of enactment of this section, the President shall require—

[1] Subparagraph (E) of section 311(j)(5) shall take effect 36 months (August 18, 1993) after the date of the enactment of Public Law 101-380. See P.L. 101-380, sec. 4202(b)(4)(C), 104 Stat. 532.

(A) periodic inspection of containment booms, skimmers, vessels, and other major equipment used to remove discharges; and

(B) vessels operating on navigable waters and carrying oil or a hazardous substance in bulk as cargo to carry appropriate removal equipment that employs the best technology economically feasible and that is compatible with the safe operation of the vessel.

(7) AREA DRILLS.—The President shall periodically conduct drills of removal capability, without prior notice, in areas for which Area Contingency Plans are required under this subsection and under relevant tank vessel and facility response plans. The drills may include participation by Federal, State, and local agencies, the owners and operators of vessels and facilities in the area, and private industry. The President may publish annual reports on these drills, including assessments of the effectiveness of the plans and a list of amendments made to improve plans.

(8) UNITED STATES GOVERNMENT NOT LIABLE.—The United States Government is not liable for any damages arising from its actions or omissions relating to any response plan required by this section.

[Subsection (k) was repealed by sec. 2002(b)(2) of P.L. 101-380.]

(l) The President is authorized to delegate the administration of this section to the heads of those Federal departments, agencies, and instrumentalities which he determines to be appropriate. Each such department, agency, and instrumentality, in order to avoid duplication of effort, shall, whenever appropriate, utilize the personnel, services, and facilities of other Federal departments, agencies, and instrumentalities.

(m) ADMINISTRATIVE PROVISIONS.—

(1) FOR VESSELS.—Anyone authorized by the President to enforce the provisions of this section with respect to any vessel may, except as to public vessels—

(A) board and inspect any vessel upon the navigable waters of the United States or the waters of the contiguous zone,

(B) with or without a warrant, arrest any person who in the presence or view of the authorized person violates the provisions of this section or any regulation issued thereunder, and

(C) execute any warrant or other process issued by an officer or court of competent jurisdiction.

(2) FOR FACILITIES.—

(A) RECORDKEEPING.—Whenever required to carry out the purposes of this section, the Administrator or the Secretary of the Department in which the Coast Guard is operating shall require the owner or operator of a facility to which this section applies to establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment and methods, and provide such other information as the Administrator or Secretary, as

the case may be, may require to carry out the objectives of this section.

(B) ENTRY AND INSPECTION.—Whenever required to carry out the purposes of this section, the Administrator or the Secretary of the Department in which the Coast Guard is operating or an authorized representative of the Administrator or Secretary, upon presentation of appropriate credentials, may—

(i) enter and inspect any facility to which this section applies, including any facility at which any records are required to be maintained under subparagraph (A); and

(ii) at reasonable times, have access to and copy any records, take samples, and inspect any monitoring equipment or methods required under subparagraph (A).

(C) ARRESTS AND EXECUTION OF WARRANTS.—Anyone authorized by the Administrator or the Secretary of the department in which the Coast Guard is operating to enforce the provisions of this section with respect to any facility may—

(i) with or without a warrant, arrest any person who violates the provisions of this section or any regulation issued thereunder in the presence or view of the person so authorized; and

(ii) execute any warrant or process issued by an officer or court of competent jurisdiction.

(D) PUBLIC ACCESS.—Any records, reports, or information obtained under this paragraph shall be subject to the same public access and disclosure requirements which are applicable to records, reports, and information obtained pursuant to section 308.

(n) The several district courts of the United States are invested with jurisdiction for any actions, other than actions pursuant to subsection (i)(1), arising under this section. In the case of Guam and the Trust Territory of the Pacific Islands, such actions may be brought in the district court of Guam, and in the case of the Virgin Islands such actions may be brought in the district court of the Virgin Islands. In the case of American Samoa and the Trust Territory of the Pacific Islands, such actions may be brought in the District Court of the United States for the District of Hawaii and such court shall have jurisdiction of such actions. In the case of the Canal Zone, such actions may be brought in the United States District Court for the District of the Canal Zone.

(o)(1) Nothing in this section shall affect or modify in any way the obligations of any owner or operator of any vessel, or of any owner or operator of any onshore facility or offshore facility to any person or agency under any provision of law for damages to any publicly owned or privately owned property resulting from a discharge of any oil or hazardous substance or from the removal of any such oil or hazardous substance.

(2) Nothing in this section shall be construed as preempting any State or political subdivision thereof from imposing any requirement or liability with respect to the discharge of oil or haz-

ardous substance into any waters within such State, or with respect to any removal activites related to such discharge.

(3) Nothing in this section shall be construed as affecting or modifying any other existing authority of any Federal department, agency, or instrumentality, relative to onshore or offshore facilities under this Act or any other provision of law, or to affect any State or local law not in conflict with this section.

[Subsection (p) was repealed by sec. 2002(b)(4) of Public Law 101-380, 104 Stat. 507.]

(q) The President is authorized to establish, with repect to any class or category of onshore or offshore facilities, a maximum limit of liability under subsections (f)(2) and (3) of this section of less than $50,000,0000, but not less than, $8,000,000.

(r) Nothing in this section shall be construed to impose, or authorize the imposition of any limitation on liability under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974.

(s) The Oil Spill Liability Trust Fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509) shall be available to carry out subsections (b), (c), (d), (j), and (l) as those subsections apply to discharges, and substantial threats of discharges, of oil. Any amounts received by the United States under this section shall be deposited in the Oil Spill Liability Trust Fund.

(33 U.S.C. 1321)

MARINE SANITATION DEVICES

SEC. 312. (a) For the purpose of this section, the term—

(1) "new vessel" includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the navigable waters, the construction of which is initiated after promulgation of standards and regulations under this section;

(2) "existing vessel" includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the navigable waters, the construction of which is initiated before promulgation of standards and regulations under this section;

(3) "public vessel" means a vessel owned or bareboat chartered and operated by the United States, by a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce;

(4) "United States" includes the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Canal Zone, and the Trust Territory of the Pacific Islands;

(5) "marine sanitation device" includes any equipment for installation on board a vessel which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage;

(6) "sewage" means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes except that, with respect to commercial vessels on the Great Lakes, such term shall include graywater;

(7) "manufacture" means any person engaged in the manufacturing, assembling, or importation of marine sanitation devices or of vessels subject to standards and regulations promulgated under this section;

(8) "person" means an individual, partnership, firm, corporation, association, or agency of the United States, but does not include an individual on board a public vessel;

(9) "discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping;

(10) "commercial vessels" means those vessels used in the business of transporting property for compensation or hire, or in transporting property in the business of the owner, lessee, or operator of the vessel;

(11) "graywater" means galley, bath, and shower water;

(12) "discharge incidental to the normal operation of a vessel"—

(A) means a discharge, including—

(i) graywater, bilge water, cooling water, weather deck runoff, ballast water, oil water separator effluent, and any other pollutant discharge from the operation of a marine propulsion system, shipboard maneuvering system, crew habitability system, or installed major equipment, such as an aircraft carrier elevator or a catapult, or from a protective, preservative, or absorptive application to the hull of the vessel; and

(ii) a discharge in connection with the testing, maintenance, and repair of a system described in clause (i) whenever the vessel is waterborne; and

(B) does not include—

(i) a discharge of rubbish, trash, garbage, or other such material discharged overboard;

(ii) an air emission resulting from the operation of a vessel propulsion system, motor driven equipment, or incinerator; or

(iii) a discharge that is not covered by part 122.3 of title 40, Code of Federal Regulations (as in effect on the date of the enactment of subsection (n));

(13) "marine pollution control device" means any equipment or management practice, for installation or use on board a vessel of the Armed Forces, that is—

(A) designed to receive, retain, treat, control, or discharge a discharge incidental to the normal operation of a vessel; and

(B) determined by the Administrator and the Secretary of Defense to be the most effective equipment or management practice to reduce the environmental impacts of the discharge consistent with the considerations set forth in subsection (n)(2)(B); and

(14) "vessel of the Armed Forces" means—

(A) any vessel owned or operated by the Department of Defense, other than a time or voyage chartered vessel; and

(B) any vessel owned or operated by the Department of Transportation that is designated by the Secretary of

the department in which the Coast Guard is operating as a vessel equivalent to a vessel described in subparagraph (A).

(b)(1) As soon as possible, after the enactment of this section and subject to the provisions of section 104(j) of this Act, the Administrator, after consultation with the Secretary of the department in which the Coast Guard is operating, after giving appropriate consideration to the economic costs involved, and within the limits of available technology, shall promulgate Federal standards of performance for marine sanitation devices (hereinafter in this section referred to as "standards") which shall be designed to prevent the discharge of untreated or inadequately treated sewage into or upon the navigable waters from new vessels and existing vessels, except vessels not equipped with installed toilet facilities. Such standards and standards established under subsection (c)(1)(B) of this section shall be consistent with maritime safety and the marine and navigation laws and regulations and shall be coordinated with the regulations issued under this subsection by the Secretary of the department in which the Coast Guard is operating. The Secretary of the department in which the Coast Guard is operating shall promulgate regulations, which are consistent with standards promulgated under this subsection and subsection (c) of this section and with maritime safety and the marine and navigation laws and regulations governing the design, construction, installation, and operation of any marine sanitation device on board such vessels.

(2) Any existing vessel equipped with a marine sanitation device on the date of promulgation of initial standards and regulations under this section, which device is in compliance with such initial standards and regulations, shall be deemed in compliance with this section until such time as the device is replaced or is found not to be in compliance with such initial standards and regulations.

(c)(1)(A) Initial standards and regulations under this section shall become effective for new vessels two years after promulgation; and for existing vessels five years after promulgation. Revisions of standards and regulations shall be effective upon promulgation, unless another effective date is specified, except that no revision shall take effect before the effective date of the standard or regulation being revised.

(B) The Administrator shall, with respect to commercial vessels on the Great Lakes, establish standards which require at a minimum the equivalent of secondary treatment as defined under section 304(d) of this Act. Such standards and regulations shall take effect for existing vessels after such time as the Administrator determines to be reasonable for the upgrading of marine sanitation devices to attain such standard.

(2) The Secretary of the department in which the Coast Guard is operating with regard to his regulatory authority established by this section, after consultation with the Administrator, may distinguish among classes, types, and sizes of vessels as well as between new and existing vessels, and may waive applicability of standards and regulations as necessary or appropriate for such classes, types, and sizes of vessels (including existing vessels equipped with ma-

rine sanitation devices on the date of promulgation of the initial standards required by this section), and, upon application, for individual vessels.

(d) The provisions of this section and the standards and regulations promulgated hereunder apply to vessels owned and operated by the United States unless the Secretary of Defense finds that compliance would not be in the interest of national security. With respect to vessels owned and operated by the Department of Defense, regulations under the last sentence of subsection (b)(1) of this section and certifications under subsection (g)(2) of this section shall be promulgated and issued by the Secretary of Defense.

(e) Before the standards and regulations under this section are promulgated, the Administrator and the Secretary of the department in which the Coast Guard is operating shall consult with the Secretary of State; the Secretary of Health, Education, and Welfare; the Secretary of Defense; the Secretary of the Treasury; the Secretary of Commerce; other interested Federal agencies; and the States and industries interested; and otherwise comply with the requirements of section 553 of title 5 of the United States Code.

(f)(1)(A) Except as provided in subparagraph (B), after the effective date of the initial standards and regulations promulgated under this section, no State or political subdivision thereof shall adopt or enforce any statute or regulation of such State or political subdivision with respect to the design, manufacture, or installation or use of any marine sanitation device on any vessel subject to the provisions of this section.

(B) A State may adopt and enforce a statute or regulation with respect to the design, manufacture, or installation or use of any marine sanitation device on a houseboat, if such statute or regulation is more stringent than the standards and regulations promulgated under this section. For purposes of this paragraph, the term "houseboat" means a vessel which, for a period of time determined by the State in which the vessel is located, is used primarily as a residence and is not used primarily as a means of transportation.

(2) If, after promulgation of the initial standards and regulations and prior to their effective date, a vessel is equipped with a marine sanitation device in compliance with such standards and regulations and the installation and operation of such device is in accordance with such standards and regulations, such standards and regulations shall, for the purposes of paragraph (1) of this subsection, become effective with respect to such vessel on the date of such compliance.

(3) After the effective date of the initial standards and regulations promulgated under this section, if any State determines that the protection and enhancement of the quality of some or all of the waters within such State require greater environmental protection, such State may completely prohibit the discharge from all vessels of any sewage, whether treated or not, into such waters, except that no such prohibition shall apply until the Administrator determines that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available for such water to which such prohibition would apply. Upon application of the State, the Administrator shall make such determination within 90 days of the date of such application.

(4)(A) If the Administrator determines upon application by a State that the protection and enhancement of the quality of specified waters within such State requires such a prohibition, he shall by regulation completely prohibit the discharge from a vessel of any sewage (whether treated or not) into such waters.

(B) Upon application by a State, the Administrator shall, by regulation, establish a drinking water intake zone in any waters within such State and prohibit the discharge of sewage from vessels within that zone.

(g)(1) No manufacturer of a marine sanitation device shall sell, offer for sale, or introduce or deliver for introduction in interstate commerce, or import into the United States for sale or resale any marine sanitation device manufactured after the effective date of the standards and regulations promulgated under this section unless such device is in all material respects substantially the same as a test device certified under this subsection.

(2) Upon application of the manufacturer, the Secretary of the department in which the Coast Guard is operating shall so certify a marine sanitation device if he determines, in accordance with the provisions of this paragraph, that it meets the appropriate standards and regulations promulgated under this section. The Secretary of the department in which the Coast Guard is operating shall test or require such testing of the device in accordance with procedures set forth by the Administrator as to standards of performance and for such other purposes as may be appropriate. If the Secretary of the department in which the Coast Guard is operating determines that the device is satisfactory from the standpoint of safety and any other requirements of maritime law or regulation, and after consideration of the design, installation, operation, material, or other appropriate factors, he shall certify the device. Any device manufactured by such manufacturer which is in all material respects substantially the same as the certified test device shall be deemed to be in conformity with the appropriate standards and regulations established under this section.

(3) Every manufacturer shall establish and maintain such records, make such reports, and provide such information as the Administrator or the Secretary of the department in which the Coast Guard is operating may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with this section and regulations issued thereunder and shall, upon request of an officer or employee duly designated by the Administrator or the Secretary of the department in which the Coast Guard is operating, permit such officer or employee at reasonable times to have access to and copy such records. All information reported to or otherwise obtained by the Administrator or the Secretary of the department in which the Coast Guard is operating or their representatives pursuant to this subsection which contains or relates to a trade secret or other matter referred in section 1905 of title 18 of the United States Code shall be considered confidential for the purpose of that section, except that such information may be disclosed to other officers or employees concerned with carrying out this section. This paragraph shall not apply in the case of the construction of a vessel by an individual for his own use.

(h) After the effective date of standards and regulations promulgated under this section, it shall be unlawful—

(1) for the manufacturer of any vessel subject to such standards and regulations to manufacture for sale, to sell or offer for sale, or to distribute for sale or resale any such vessel unless it is equipped with a marine sanitation device which is in all material respects substantially the same as the appropriate test device certified pursuant to this section;

(2) for any person, prior to the sale or delivery of a vessel subject to such standards and regulations to the ultimate purchaser, wrongfully to remove or render inoperative any certified marine sanitation device or element of design of such device installed in such vessel;

(3) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under this section; and

(4) for a vessel subject to such standards and regulations to operate on the navigable waters of the United States, if such vessel is not equipped with an operable marine sanitation device certified pursuant to this section.

(i) The district courts of the United States shall have jurisdictions to restrain violations of subsection (g)(1) of this section and subsections (h)(1) through (3) of this section. Actions to restrain such violations shall be brought by, and in, the name of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony or to appear and produce documents, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(j) Any person who violates subsection (g)(1), clause (1) or (2) of subsection (h), or subsection (n)(8) shall be liable to a civil penalty of not more than $5,000 for each violation. Any person who violates clause (4) of subsection (h) of this section or any regulation issued pursuant to this section shall be liable to a civil penalty of not more than $2,000 for each violation. Each violation shall be a separate offense. The Secretary of the department in which the Coast Guard is operating may assess and compromise any such penalty. No penalty shall be assessed until the person charged shall have been given notice and an opportunity for a hearing on such charge. In determining the amount of the penalty, or the amount agreed upon in compromise, the gravity of the violation, and the demonstrated good faith of the person charged in attempting to achieve rapid compliance, after notification of a violation, shall be considered by said Secretary.

(k) The provisions of this section shall be enforced by the Secretary of the department in which the Coast Guard is operating and he may utilize by agreement, with or without reimbursement, law enforcement officers or other personnel and facilities of the Administrator, other Federal agencies, or the States to carry out the provisions of this section. The provisions of this section may also be enforced by a State.

(l) Anyone authorized by the Secretary of the department in which the Coast Guard is operating to enforce the provisions of this section may, except as to public vessels, (1) board and inspect any vessel upon the navigable waters of the United States and (2) execute any warrant or other process issued by an officer or court of competent jurisdiction.

(m) In the case of Guam and the Trust Territory of the Pacific Islands, actions arising under this section may be brought in the district court of Guam, and in the case of the Virgin Islands such actions may be brought in the district court of the Virgin Islands. In the case of American Samoa and the Trust Territory of the Pacific Islands, such actions may be brought in the District Court of the United States for the District of Hawaii and such court shall have jurisdiction of such actions. In the case of the Canal Zone, such actions may be brought in the District Court for the District of the Canal Zone.

(n) UNIFORM NATIONAL DISCHARGE STANDARDS FOR VESSELS OF THE ARMED FORCES.—

(1) APPLICABILITY.—This subsection shall apply to vessels of the Armed Forces and discharges, other than sewage, incidental to the normal operation of a vessel of the Armed Forces, unless the Secretary of Defense finds that compliance with this subsection would not be in the national security interests of the United States.

(2) DETERMINATION OF DISCHARGES REQUIRED TO BE CONTROLLED BY MARINE POLLUTION CONTROL DEVICES.—

(A) IN GENERAL.—The Administrator and the Secretary of Defense, after consultation with the Secretary of the department in which the Coast Guard is operating, the Secretary of Commerce, and interested States, shall jointly determine the discharges incidental to the normal operation of a vessel of the Armed Forces for which it is reasonable and practicable to require use of a marine pollution control device to mitigate adverse impacts on the marine environment. Notwithstanding subsection (a)(1) of section 553 of title 5, United States Code, the Administrator and the Secretary of Defense shall promulgate the determinations in accordance with such section. The Secretary of Defense shall require the use of a marine pollution control device on board a vessel of the Armed Forces in any case in which it is determined that the use of such a device is reasonable and practicable.

(B) CONSIDERATIONS.—In making a determination under subparagraph (A), the Administrator and the Secretary of Defense shall take into consideration—

(i) the nature of the discharge;

(ii) the environmental effects of the discharge;

(iii) the practicability of using the marine pollution control device;

(iv) the effect that installation or use of the marine pollution control device would have on the operation or operational capability of the vessel;

(v) applicable United States law;

(vi) applicable international standards; and

(vii) the economic costs of the installation and use of the marine pollution control device.

(3) PERFORMANCE STANDARDS FOR MARINE POLLUTION CONTROL DEVICES.—

(A) IN GENERAL.—For each discharge for which a marine pollution control device is determined to be required under paragraph (2), the Administrator and the Secretary of Defense, in consultation with the Secretary of the department in which the Coast Guard is operating, the Secretary of State, the Secretary of Commerce, other interested Federal agencies, and interested States, shall jointly promulgate Federal standards of performance for each marine pollution control device required with respect to the discharge. Notwithstanding subsection (a)(1) of section 553 of title 5, United States Code, the Administrator and the Secretary of Defense shall promulgate the standards in accordance with such section.

(B) CONSIDERATIONS.—In promulgating standards under this paragraph, the Administrator and the Secretary of Defense shall take into consideration the matters set forth in paragraph (2)(B).

(C) CLASSES, TYPES, AND SIZES OF VESSELS.—The standards promulgated under this paragraph may—

(i) distinguish among classes, types, and sizes of vessels;

(ii) distinguish between new and existing vessels; and

(iii) provide for a waiver of the applicability of the standards as necessary or appropriate to a particular class, type, age, or size of vessel.

(4) REGULATIONS FOR USE OF MARINE POLLUTION CONTROL DEVICES.—The Secretary of Defense, after consultation with the Administrator and the Secretary of the department in which the Coast Guard is operating, shall promulgate such regulations governing the design, construction, installation, and use of marine pollution control devices on board vessels of the Armed Forces as are necessary to achieve the standards promulgated under paragraph (3).

(5) DEADLINES; EFFECTIVE DATE.—

(A) DETERMINATIONS.—The Administrator and the Secretary of Defense shall—

(i) make the initial determinations under paragraph (2) not later than 2 years after the date of the enactment of this subsection; and

(ii) every 5 years—

(I) review the determinations; and

(II) if necessary, revise the determinations based on significant new information.

(B) STANDARDS.—The Administrator and the Secretary of Defense shall—

(i) promulgate standards of performance for a marine pollution control device under paragraph (3) not later than 2 years after the date of a determination

under paragraph (2) that the marine pollution control device is required; and

(ii) every 5 years—

(I) review the standards; and

(II) if necessary, revise the standards, consistent with paragraph (3)(B) and based on significant new information.

(C) REGULATIONS.—The Secretary of Defense shall promulgate regulations with respect to a marine pollution control device under paragraph (4) as soon as practicable after the Administrator and the Secretary of Defense promulgate standards with respect to the device under paragraph (3), but not later than 1 year after the Administrator and the Secretary of Defense promulgate the standards. The regulations promulgated by the Secretary of Defense under paragraph (4) shall become effective upon promulgation unless another effective date is specified in the regulations.

(D) PETITION FOR REVIEW.—The Governor of any State may submit a petition requesting that the Secretary of Defense and the Administrator review a determination under paragraph (2) or a standard under paragraph (3), if there is significant new information, not considered previously, that could reasonably result in a change to the particular determination or standard after consideration of the matters set forth in paragraph (2)(B). The petition shall be accompanied by the scientific and technical information on which the petition is based. The Administrator and the Secretary of Defense shall grant or deny the petition not later than 2 years after the date of receipt of the petition.

(6) EFFECT ON OTHER LAWS.—

(A) PROHIBITION ON REGULATION BY STATES OR POLITICAL SUBDIVISIONS OF STATES.—Beginning on the effective date of—

(i) a determination under paragraph (2) that it is not reasonable and practicable to require use of a marine pollution control device regarding a particular discharge incidental to the normal operation of a vessel of the Armed Forces; or

(ii) regulations promulgated by the Secretary of Defense under paragraph (4);

except as provided in paragraph (7), neither a State nor a political subdivision of a State may adopt or enforce any statute or regulation of the State or political subdivision with respect to the discharge or the design, construction, installation, or use of any marine pollution control device required to control discharges from a vessel of the Armed Forces.

(B) FEDERAL LAWS.—This subsection shall not affect the application of section 311 to discharges incidental to the normal operation of a vessel.

(7) ESTABLISHMENT OF STATE NO-DISCHARGE ZONES.—

(A) STATE PROHIBITION.—

(i) IN GENERAL.—After the effective date of—

(I) a determination under paragraph (2) that it is not reasonable and practicable to require use of a marine pollution control device regarding a particular discharge incidental to the normal operation of a vessel of the Armed Forces; or

(II) regulations promulgated by the Secretary of Defense under paragraph (4);

if a State determines that the protection and enhancement of the quality of some or all of the waters within the State require greater environmental protection, the State may prohibit 1 or more discharges incidental to the normal operation of a vessel, whether treated or not treated, into the waters. No prohibition shall apply until the Administrator makes the determinations described in subclauses (II) and (III) of subparagraph (B)(i).

(ii) DOCUMENTATION.—To the extent that a prohibition under this paragraph would apply to vessels of the Armed Forces and not to other types of vessels, the State shall document the technical or environmental basis for the distinction.

(B) PROHIBITION BY THE ADMINISTRATOR.—

(i) IN GENERAL.—Upon application of a State, the Administrator shall by regulation prohibit the discharge from a vessel of 1 or more discharges incidental to the normal operation of a vessel, whether treated or not treated, into the waters covered by the application if the Administrator determines that—

(I) the protection and enhancement of the quality of the specified waters within the State require a prohibition of the discharge into the waters;

(II) adequate facilities for the safe and sanitary removal of the discharge incidental to the normal operation of a vessel are reasonably available for the waters to which the prohibition would apply; and

(III) the prohibition will not have the effect of discriminating against a vessel of the Armed Forces by reason of the ownership or operation by the Federal Government, or the military function, of the vessel.

(ii) APPROVAL OR DISAPPROVAL.—The Administrator shall approve or disapprove an application submitted under clause (i) not later than 90 days after the date on which the application is submitted to the Administrator. Notwithstanding clause (i)(II), the Administrator shall not disapprove an application for the sole reason that there are not adequate facilities to remove any discharge incidental to the normal operation of a vessel from vessels of the Armed Forces.

(C) APPLICABILITY TO FOREIGN FLAGGED VESSELS.—A prohibition under this paragraph—

(i) shall not impose any design, construction, manning, or equipment standard on a foreign flagged vessel engaged in innocent passage unless the prohibition implements a generally accepted international rule or standard; and

(ii) that relates to the prevention, reduction, and control of pollution shall not apply to a foreign flagged vessel engaged in transit passage unless the prohibition implements an applicable international regulation regarding the discharge of oil, oily waste, or any other noxious substance into the waters.

(8) PROHIBITION RELATING TO VESSELS OF THE ARMED FORCES.—After the effective date of the regulations promulgated by the Secretary of Defense under paragraph (4), it shall be unlawful for any vessel of the Armed Forces subject to the regulations to—

(A) operate in the navigable waters of the United States or the waters of the contiguous zone, if the vessel is not equipped with any required marine pollution control device meeting standards established under this subsection; or

(B) discharge overboard any discharge incidental to the normal operation of a vessel in waters with respect to which a prohibition on the discharge has been established under paragraph (7).

(9) ENFORCEMENT.—This subsection shall be enforceable, as provided in subsections (j) and (k), against any agency of the United States responsible for vessels of the Armed Forces notwithstanding any immunity asserted by the agency.

(33 U.S.C. 1322)

FEDERAL FACILITIES POLLUTION CONTROL

SEC. 313. (a) Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants, and each officer, agent, or employee thereof in the performance of his official duties, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charges. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement, whatsoever), (B) to the exercise of any Federal, State, or local administrative authority, and (C) to any process and sanction, whether enforced in Federal, State, or local courts or in any other manner. This subsection shall apply notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law. Nothing in this section shall be construed to prevent any department, agency, or instrumentality of the Federal Government,

or any officer, agent, or employee thereof in the performance of his official duties, from removing to the appropriate Federal district court any proceeding to which the department, agency, or instrumentality or officer, agent, or employee thereof is subject pursuant to this section, and any such proceeding may be removed in accordance with 28 U.S.C. 1441 et seq. No officer, agent, or employee of the United States shall be personally liable for any civil penalty arising from the performance of his official duties, for which he is not otherwise liable, and the United States shall be liable only for those civil penalties arising under Federal law or imposed by a State or local court to enforce an order or the process of such court. The President may exempt any effluent source of any department, agency, or instrumentality in the executive branch from compliance with any such a requirement if he determines it to be in the paramount interest of the United States to do so; except that no exemption may be granted from the requirements of section 306 or 307 of this Act. No such exemptions shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods of not to exceed one year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting such exemption. In addition to any such exemption of a particular effluent source, the President may, if he determines it to be in the paramount interest of the United States to do so, issue regulations exempting from compliance with the requirements of this section any weaponry, equipment, aircraft, vessels, vehicles, or other classes or categories of property, and access to such property, which are owned or operated by the Armed Forces of the United States (including the Coast Guard) or by the National Guard of any State and which are uniquely military in nature. The President shall reconsider the need for such regulations at three-year intervals.

(b)(1) The Administrator shall coordinate with the head of each department, agency, or instrumentality of the Federal Government having jurisdiction over any property or facility utilizing federally owned wastewater facilities to develop a program of cooperation for utilizing wastewater control systems utilizing those innovative treatment processes and techniques for which guidelines have been promulgated under section 304(d)(3). Such program shall include an inventory of property and facilities which could utilize such processes and techniques.

(2) Construction shall not be initiated for facilities for treatment of wastewater at any Federal property or facility after September 30, 1979, if alternative methods for wastewater treatment at such property or facility utilizing innovative treatment processes and techniques, including but not limited to methods utilizing recycle and reuse techniques and land treatment are not utilized, unless the life cycle cost of the alternative treatment works exceeds the life cycle cost of the most cost effective alternative by more than 15 per centum. The Administrator may waive the application

of this paragraph in any case where the Administrator determines it to be in the public interest, or that compliance with this paragraph would interfere with the orderly compliance with the conditions of a permit issued pursuant to section 402 of this Act.

(33 U.S.C. 1323)

CLEAN LAKES

SEC. 314. (a) ESTABLISHMENT AND SCOPE OF PROGRAM.—

(1) STATE PROGRAM REQUIREMENTS.—Each State on a biennial basis shall prepare and submit to the Administrator for his approval—

(A) an identification and classification according to eutrophic condition of all publicly owned lakes in such State;

(B) a description of procedures, processes, and methods (including land use requirements), to control sources of pollution of such lakes;

(C) a description of methods and procedures, in conjunction with appropriate Federal agencies, to restore the quality of such lakes;

(D) methods and procedures to mitigate the harmful effects of high acidity, including innovative methods of neutralizing and restoring buffering capacity of lakes and methods of removing from lakes toxic metals and other toxic substances mobilized by high acidity;

(E) a list and description of those publicly owned lakes in such State for which uses are known to be impaired, including those lakes which are known not to meet applicable water quality standards or which require implementation of control programs to maintain compliance with applicable standards and those lakes in which water quality has deteriorated as a result of high acidity that may reasonably be due to acid deposition; and

(F) an assessment of the status and trends of water quality in lakes in such State, including but not limited to, the nature and extent of pollution loading from point and nonpoint sources and the extent to which the use of lakes is impaired as a result of such pollution, particularly with respect to toxic pollution.

(2) SUBMISSION AS PART OF 305(b)(1) REPORT.—The information required under paragraph (1) shall be included in the report required under section 305(b)(1) of this Act, beginning with the report required under such section by April 1, 1988.

(3) ELIGIBILITY REQUIREMENT.—Beginning after April 1, 1988, a State must have submitted the information required under paragraph (1) in order to receive grant assistance under this section.

(b) The Administrator shall provide financial assistance to States in order to carry out methods and procedures approved by him under subsection (a) of this section. The Administrator shall provide financial assistance to States to prepare the identification and classification surveys required in subsection (a)(1) of this section.

(c)(1) The amount granted to any State for any fiscal year under subsection (b) of this section shall not exceed 70 per centum of the funds expended by such State in such year for carrying out approved methods and procedures under subsection (a) of this section.

(2) There is authorized to be appropriated $50,000,000 for the fiscal year ending June 30, 1973; $100,000,000 for the fiscal year 1974; $150,000,000 for the fiscal year 1975, $50,000,000 for fiscal year 1977, $60,000,000 for fiscal year 1978, $60,000,000 for fiscal year 1979, $60,000,000 for fiscal year 1980, $30,000,000 for fiscal year 1981, $30,000,000 for fiscal year 1982, such sums as may be necessary for fiscal years 1983 through 1985, and $30,000,000 per fiscal year for each of the fiscal years 1986 through 1990 for grants to States under subsection (b) of this section which such sums shall remain available until expended. The Administrator shall provide for an equitable distribution of such sums to the States with approved methods and procedures under subsection (a) of this section.

(d) DEMONSTRATION PROGRAM.—

(1) GENERAL REQUIREMENTS.—The Administrator is authorized and directed to establish and conduct at locations throughout the Nation a lake water quality demonstration program. The program shall, at a minimum—

(A) develop cost effective technologies for the control of pollutants to preserve or enhance lake water quality while optimizing multiple lakes uses;

(B) control nonpoint sources of pollution which are contributing to the degradation of water quality in lakes;

(C) evaluate the feasibility of implementing regional consolidated pollution control strategies;

(D) demonstrate environmentally preferred techniques for the removal and disposal of contaminated lake sediments;

(E) develop improved methods for the removal of silt, stumps, aquatic growth, and other obstructions which impair the quality of lakes;

(F) construct and evaluate silt traps and other devices or equipment to prevent or abate the deposit of sediment in lakes; and

(G) demonstrate the costs and benefits of utilizing dredged material from lakes in the reclamation of despoiled land.

(2) GEOGRAPHICAL REQUIREMENTS.—Demonstration projects authorized by this subsection shall be undertaken to reflect a variety of geographical and environmental conditions. As a priority, the Administrator shall undertake demonstration projects at Lake Champlain, New York and Vermont; Lake Houston, Texas; Beaver Lake, Arkansas; Greenwood Lake and Belcher Creek, New Jersey; Deal Lake, New Jersey; Alcyon Lake, New Jersey; Gorton's Pond, Rhode Island; Lake Washington, Rhode Island; Lake Bomoseen, Vermont; Sauk Lake, Minnesota; and Lake Worth, Texas.

(3) REPORTS.—By January 1, 1997, and January 1 of every odd-numbered year thereafter, the Administrator shall report to the Committee on Transportation and Infrastructure of the

House of Representatives and the Committee on Environment and Public Works of the Senate on work undertaken pursuant to this subsection. Upon completion of the program authorized by this subsection, the Administrator shall submit to such committees a final report on the results of such program, along with recommendations for further measures to improve the water quality of the Nation's lakes.

(4) AUTHORIZATION OF APPROPRIATIONS.—

(A) IN GENERAL.—There is authorized to be appropriated to carry out this subsection not to exceed $40,000,000 for fiscal years beginning after September 30, 1986, to remain available until expended.

(B) SPECIAL AUTHORIZATIONS.—

(i) AMOUNT.—There is authorized to be appropriated to carry out subsection (b) with respect to subsection (a)(1)(D) not to exceed $15,000,000 for fiscal years beginning after September 30, 1986, to remain available until expended.

(ii) DISTRIBUTION OF FUNDS.—The Administrator shall provide for an equitable distribution of sums appropriated pursuant to this subparagraph among States carrying out approved methods and procedures. Such distribution shall be based on the relative needs of each such State for the mitigation of the harmful effects on lakes and other surface waters of high acidity that may reasonably be due to acid deposition or acid mine drainage.

(iii) GRANTS AS ADDITIONAL ASSISTANCE.—The amount of any grant to a State under this subparagraph shall be in addition to, and not in lieu of, any other Federal financial assistance.

(33 U.S.C. 1324)

NATIONAL STUDY COMMISSION

SEC. 315. (a) There is established a National Study Commission, which shall make a full and complete investigation and study of all of the technological aspects of achieving, and all aspects of the total economic, social, and environmental effects of achieving or not achieving, the effluent limitations and goals set forth for 1983 in section 301(b)(2) of this Act.

(b) Such Commission shall be composed of fifteen members, including five members of the Senate, who are members of the Public Works committee, appointed by the President of the Senate, five members of the House, who are members of the Public Works committee, appointed by the Speaker of the House, and five members of the public appointed by the President. The Chairman of such Commission shall be elected from among its members.

(c) In the conduct of such study, the Commission is authorized to contract with the National Academy of Sciences and the National Academy of Engineering (acting through the National Research Council), the National Institute of Ecology, Brookings Institution, and other nongovernmental entities, for the investigation of matters within their competence.

(d) The heads of the departments, agencies and instrumentalities of the executive branch of the Federal Government shall cooperate with the Commission in carrying out the requirements of this section, and shall furnish to the Commission such information as the Commission deems necessary to carry out this section.

(e) A report shall be submitted to the Congress of the results of such investigation and study, together with recommendations, not later than three years after the date of enactment of this title.

(f) The members of the Commission who are not officers or employees of the United States, while attending conferences or meetings of the Commission or while otherwise serving at the request of the Chairman shall be entitled to receive compensation at a rate not in excess of the maximum rate of pay for grade GS–18, as provided in the General Schedule under section 5332 of title V of the United States Code, including traveltime and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence as authorized by law (5 U.S.C. 73b–2) for persons in the Government service employed intermittently.

(g) In addition to authority to appoint personnel subject to the provisions of title 5, United States Code, governing appointments in the competitive service, and to pay such personnel in accordance with the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates, the Commission shall have authority to enter into contracts with private or public organizations who shall furnish the Commission with such administrative and technical personnel as may be necessary to carry out the purpose of this section. Personnel furnished by such organizations under this subsection are not, and shall not be considered to be, Federal employees for any purposes, but in the performance of their duties shall be guided by the standards which apply to employees of the legislative branches under rules 41 and 43 of the Senate and House of Representatives, respectively.

(h) There is authorized to be appropriated, for use in carrying out this section, not to exceed $17,250,000.

(33 U.S.C. 1325)

THERMAL DISCHARGES

SEC. 316. (a) With respect to any point source otherwise subject to the provisions of section 301 or section 306 of this Act, whenever the owner or operator of any such source, after opportunity for public hearing, can demonstrate to the satisfaction of the Administrator (or, if appropriate, the State) that any effluent limitation proposed for the control of the thermal component of any discharge from such source will require effluent limitations more stringent than necessary to assure the projection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made, the Administrator (or, if appropriate, the State) may impose an effluent limitation under such sections for such plant, with respect to the thermal component of such discharge (taking into account the interaction of such thermal component with other pollutants),

that will assure the projection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on that body of water.

(b) Any standard established pursuant to section 301 or section 306 of this Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.

(c) Notwithstanding any other provision of this Act, any point source of a discharge having a thermal component, the modification of which point source is commenced after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 and which, as modified, meets effluent limitations established under section 301 or, if more stringent, effluent limitations established under section 303 and which effluent limitations will assure protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in or on the water into which the discharge is made, shall not be subject to any more stringent effluent limitation with respect to the thermal component of its discharge during a ten year period beginning on the date of completion of such modification or during the period of depreciation or amortization of such facility for the purpose of section 167 or 169 (or both) of the Internal Revenue Code of 1954, whichever period ends first.

(33 U.S.C. 1326)

FINANCING STUDY

SEC. 317. (a) The Administrator shall continue to investigate and study the feasibility of alternate methods of financing the cost of preventing, controlling and abating pollution as directed in the Water Quality Improvement Act of 1970 (Public Law 91–224), including, but not limited to, the feasibility of establishing a pollution abatement trust fund. The results of such investigation and study shall be reported to the Congress not later than two years after enactment of this title, together with recommendations of the Administrator for financing the programs for preventing, controlling and abating pollution for the fiscal years beginning after fiscal year 1976, including any necessary legislation.

(b) There is authorized to be appropriated for use in carrying out this section, not to exceed $1,000,000.

(33 U.S.C. 1327)

AQUACULTURE

SEC. 318. (a) The Administrator is authorized, after public hearings, to permit the discharge of a specific pollutant or pollutants under controlled conditions associated with an approved aquaculture project under Federal or State supervision pursuant to section 402 of this Act.

(b) The Administrator shall by regulation establish any procedures and guidelines which the Administrator deems necessary to carry out this section. Such regulations shall require the application to such discharge of each criterion, factor, procedure, and requirement applicable to a permit issued under section 402 of this

title, as the Administrator determines necessary to carry out the objective of this Act.

(c) Each State desiring to administer its own permit program within its jurisdiction for discharge of a specific pollutant or pollutants under controlled conditions associated with an approved aquaculture project may do so if upon submission of such program the Administrator determines such program is adequate to carry out the objective of this Act.

(33 U.S.C. 1328)

SEC. 319. NONPOINT SOURCE MANAGEMENT PROGRAMS.

(a) STATE ASSESSMENT REPORTS.—

(1) CONTENTS.—The Governor of each State shall, after notice and opportunity for public comment, prepare and submit to the Administrator for approval, a report which—

(A) identifies those navigable waters within the State which, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain applicable water quality standards or the goals and requirements of this Act;

(B) identifies those categories and subcategories of nonpoint sources or, where appropriate, particular nonpoint sources which add significant pollution to each portion of the navigable waters identified under subparagraph (A) in amounts which contribute to such portion not meeting such water quality standards or such goals and requirements;

(C) describes the process, including intergovernmental coordination and public participation, for identifying best management practices and measures to control each category and subcategory of nonpoint sources and, where appropriate, particular nonpoint sources identified under subparagraph (B) and to reduce, to the maximum extent practicable, the level of pollution resulting from such category, subcategory, or source; and

(D) identifies and describes State and local programs for controlling pollution added from nonpoint sources to, and improving the quality of, each such portion of the navigable waters, including but not limited to those programs which are receiving Federal assistance under subsections (h) and (i).

(2) INFORMATION USED IN PREPARATION.—In developing the report required by this section, the State (A) may rely upon information developed pursuant to sections 208, 303(e), 304(f), 305(b), and 314, and other information as appropriate, and (B) may utilize appropriate elements of the waste treatment management plans developed pursuant to sections 208(b) and 303, to the extent such elements are consistent with and fulfill the requirements of this section.

(b) STATE MANAGEMENT PROGRAMS.—

(1) IN GENERAL.—The Governor of each State, for that State or in combination with adjacent States, shall, after notice and opportunity for public comment, prepare and submit to the Administrator for approval a management program which such

State proposes to implement in the first four fiscal years beginning after the date of submission of such management program for controlling pollution added from nonpoint sources to the navigable waters within the State and improving the quality of such waters.

(2) SPECIFIC CONTENTS.—Each management program proposed for implementation under this subsection shall include each of the following:

(A) An identification of the best management practices and measures which will be undertaken to reduce pollutant loadings resulting from each category, subcategory, or particular nonpoint source designated under paragraph (1)(B), taking into account the impact of the practice on ground water quality.

(B) An identification of programs (including, as appropriate, nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects) to achieve implementation of the best management practices by the categories, subcategories, and particular nonpoint sources designated under subparagraph (A).

(C) A schedule containing annual milestones for (i) utilization of the program implementation methods identified in subparagraph (B), and (ii) implementation of the best management practices identified in subparagraph (A) by the categories, subcategories, or particular nonpoint sources designated under paragraph (1)(B). Such schedule shall provide for utilization of the best management practices at the earliest practicable date.

(D) A certification of the attorney general of the State or States (or the chief attorney of any State water pollution control agency which has independent legal counsel) that the laws of the State or States, as the case may be, provide adequate authority to implement such management program or, if there is not such adequate authority, a list of such additional authorities as will be necessary to implement such management program. A schedule and commitment by the State or States to seek such additional authorities as expeditiously as practicable.

(E) Sources of Federal and other assistance and funding (other than assistance provided under subsections (h) and (i)) which will be available in each of such fiscal years for supporting implementation of such practices and measures and the purposes for which such assistance will be used in each of such fiscal years.

(F) An identification of Federal financial assistance programs and Federal development projects for which the State will review individual assistance applications or development projects for their effect on water quality pursuant to the procedures set forth in Executive Order 12372 as in effect on September 17, 1983, to determine whether such assistance applications or development projects would be consistent with the program prepared under this subsection; for the purposes of this subparagraph, identifica-

tion shall not be limited to the assistance programs or development projects subject to Executive Order 12372 but may include any programs listed in the most recent Catalog of Federal Domestic Assistance which may have an effect on the purposes and objectives of the State's nonpoint source pollution management program.

(3) UTILIZATION OF LOCAL AND PRIVATE EXPERTS.—In developing and implementing a management program under this subsection, a State shall, to the maximum extent practicable, involve local public and private agencies and organizations which have expertise in control of nonpoint sources of pollution.

(4) DEVELOPMENT ON WATERSHED BASIS.—A State shall, to the maximum extent practicable, develop and implement a management program under this subsection on a watershed-by-watershed basis within such State.

(c) ADMINISTRATIVE PROVISIONS.—

(1) COOPERATION REQUIREMENT.—Any report required by subsection (a) and any management program and report required by subsection (b) shall be developed in cooperation with local, substate regional, and interstate entities which are actively planning for the implementation of nonpoint source pollution controls and have either been certified by the Administrator in accordance with section 208, have worked jointly with the State on water quality management planning under section 205(j), or have been designated by the State legislative body or Governor as water quality management planning agencies for their geographic areas.

(2) TIME PERIOD FOR SUBMISSION OF REPORTS AND MANAGEMENT PROGRAMS.—Each report and management program shall be submitted to the Administrator during the 18-month period beginning on the date of the enactment of this section.

(d) APPROVAL OR DISAPPROVAL OF REPORTS AND MANAGEMENT PROGRAMS.—

(1) DEADLINE.—Subject to paragraph (2), not later than 180 days after the date of submission to the Administrator of any report or management program under this section (other than subsections (h), (i), and (k)), the Administrator shall either approve or disapprove such report or management program, as the case may be. The Administrator may approve a portion of a management program under this subsection. If the Administrator does not disapprove a report, management program, or portion of a management program in such 180-day period, such report, management program, or portion shall be deemed approved for purposes of this section.

(2) PROCEDURE FOR DISAPPROVAL.—If, after notice and opportunity for public comment and consultation with appropriate Federal and State agencies and other interested persons, the Administrator determines that—

(A) the proposed management program or any portion thereof does not meet the requirements of subsection (b)(2) of this section or is not likely to satisfy, in whole or in part, the goals and requirements of this Act;

(B) adequate authority does not exist, or adequate resources are not available, to implement such program or portion;

(C) the schedule for implementing such program or portion is not sufficiently expeditious; or

(D) the practices and measures proposed in such program or portion are not adequate to reduce the level of pollution in navigable waters in the State resulting from nonpoint sources and to improve the quality of navigable waters in the State;

the Administrator shall within 6 months of the receipt of the proposed program notify the State of any revisions or modifications necessary to obtain approval. The State shall thereupon have an additional 3 months to submit its revised management program and the Administrator shall approve or disapprove such revised program within three months of receipt.

(3) FAILURE OF STATE TO SUBMIT REPORT.—If a Governor of a State does not submit the report required by subsection (a) within the period specified by subsection (c)(2), the Administrator shall, within 30 months after the date of the enactment of this section, prepare a report for such State which makes the identifications required by paragraphs (1)(A) and (1)(B) of subsection (a). Upon completion of the requirement of the preceding sentence and after notice and opportunity for comment, the Administrator shall report to Congress on his actions pursuant to this section.

(e) LOCAL MANAGEMENT PROGRAMS; TECHNICAL ASSISTANCE.—If a State fails to submit a management program under subsection (b) or the Administrator does not approve such a management program, a local public agency or organization which has expertise in, and authority to, control water pollution resulting from nonpoint sources in any area of such State which the Administrator determines is of sufficient geographic size may, with approval of such State, request the Administrator to provide, and the Administrator shall provide, technical assistance to such agency or organization in developing for such area a management program which is described in subsection (b) and can be approved pursuant to subsection (d). After development of such management program, such agency or organization shall submit such management program to the Administrator for approval. If the Administrator approves such management program, such agency or organization shall be eligible to receive financial assistance under subsection (h) for implementation of such management program as if such agency or organization were a State for which a report submitted under subsection (a) and a management program submitted under subsection (b) were approved under this section. Such financial assistance shall be subject to the same terms and conditions as assistance provided to a State under subsection (h).

(f) TECHNICAL ASSISTANCE FOR STATE.—Upon request of a State, the Administrator may provide technical assistance to such State in developing a management program approved under subsection (b) for those portions of the navigable waters requested by such State.

(g) INTERSTATE MANAGEMENT CONFERENCE.—

(1) CONVENING OF CONFERENCE; NOTIFICATION; PURPOSE.—If any portion of the navigable waters in any State which is implementing a management program approved under this section is not meeting applicable water quality standards or the goals and requirements of this Act as a result, in whole or in part, of pollution from nonpoint sources in another State, such State may petition the Administrator to convene, and the Administrator shall convene, a management conference of all States which contribute significant pollution resulting from nonpoint sources to such portion. If, on the basis of information available, the Administrator determines that a State is not meeting applicable water quality standards or the goals and requirements of this Act as a result, in whole or in part, of significant pollution from nonpoint sources in another State, the Administrator shall notify such States. The Administrator may convene a management conference under this paragraph not later than 180 days after giving such notification, whether or not the State which is not meeting such standards requests such conference. The purpose of such conference shall be to develop an agreement among such States to reduce the level of pollution in such portion resulting from nonpoint sources and to improve the water quality of such portion. Nothing in such agreement shall supersede or abrogate rights to quantities of water which have been established by interstate water compacts, Supreme Court decrees, or State water laws. This subsection shall not apply to any pollution which is subject to the Colorado River Basin Salinity Control Act. The requirement that the Administrator convene a management conference shall not be subject to the provisions of section 505 of this Act.

(2) STATE MANAGEMENT PROGRAM REQUIREMENT.—To the extent that the States reach agreement through such conference, the management programs of the States which are parties to such agreements and which contribute significant pollution to the navigable waters or portions thereof not meeting applicable water quality standards or goals and requirements of this Act will be revised to reflect such agreement. Such management programs shall be consistent with Federal and State law.

(h) GRANT PROGRAM.—

(1) GRANTS FOR IMPLEMENTATION OF MANAGEMENT PROGRAMS.—Upon application of a State for which a report submitted under subsection (a) and a management program submitted under subsection (b) is approved under this section, the Administrator shall make grants, subject to such terms and conditions as the Administrator considers appropriate, under this subsection to such State for the purpose of assisting the State in implementing such management program. Funds reserved pursuant to section 205(j)(5) of this Act may be used to develop and implement such management program.

(2) APPLICATIONS.—An application for a grant under this subsection in any fiscal year shall be in such form and shall contain such other information as the Administrator may require, including an identification and description of the best management practices and measures which the State proposes

to assist, encourage, or require in such year with the Federal assistance to be provided under the grant.

(3) FEDERAL SHARE.—The Federal share of the cost of each management program implemented with Federal assistance under this subsection in any fiscal year shall not exceed 60 percent of the cost incurred by the State in implementing such management program and shall be made on condition that the non-Federal share is provided from non-Federal sources.

(4) LIMITATION ON GRANT AMOUNTS.—Notwithstanding any other provision of this subsection, not more than 15 percent of the amount appropriated to carry out this subsection may be used to make grants to any one State, including any grants to any local public agency or organization with authority to control pollution from nonpoint sources in any area of such State.

(5) PRIORITY FOR EFFECTIVE MECHANISMS.—For each fiscal year beginning after September 30, 1987, the Administrator may give priority in making grants under this subsection, and shall give consideration in determining the Federal share of any such grant, to States which have implemented or are proposing to implement management programs which will—

(A) control particularly difficult or serious nonpoint source pollution problems, including, but not limited to, problems resulting from mining activities;

(B) implement innovative methods or practices for controlling nonpoint sources of pollution, including regulatory programs where the Administrator deems appropriate;

(C) control interstate nonpoint source pollution problems; or

(D) carry out ground water quality protection activities which the Administrator determines are part of a comprehensive nonpoint source pollution control program, including research, planning, ground water assessments, demonstration programs, enforcement, technical assistance, education, and training to protect ground water quality from nonpoint sources of pollution.

(6) AVAILABILITY FOR OBLIGATION.—The funds granted to each State pursuant to this subsection in a fiscal year shall remain available for obligation by such State for the fiscal year for which appropriated. The amount of any such funds not obligated by the end of such fiscal year shall be available to the Administrator for granting to other States under this subsection in the next fiscal year.

(7) LIMITATION ON USE OF FUNDS.—States may use funds from grants made pursuant to this section for financial assistance to persons only to the extent that such assistance is related to the costs of demonstration projects.

(8) SATISFACTORY PROGRESS.—No grant may be made under this subsection in any fiscal year to a State which in the preceding fiscal year received a grant under this subsection unless the Administrator determines that such State made satisfactory progress in such preceding fiscal year in meeting the schedule specified by such State under subsection (b)(2).

(9) MAINTENANCE OF EFFORT.—No grant may be made to a State under this subsection in any fiscal year unless such

State enters into such agreements with the Administrator as the Administrator may require to ensure that such State will maintain its aggregate expenditures from all other sources for programs for controlling pollution added to the navigable waters in such State from nonpoint sources and improving the quality of such waters at or above the average level of such expenditures in its two fiscal years preceding the date of enactment of this subsection.

(10) REQUEST FOR INFORMATION.—The Administrator may request such information, data, and reports as he considers necessary to make the determination of continuing eligibility for grants under this section.

(11) REPORTING AND OTHER REQUIREMENTS.—Each State shall report to the Administrator on an annual basis concerning (A) its progress in meeting the schedule of milestones submitted pursuant to subsection (b)(2)(C) of this section, and (B) to the extent that appropriate information is available, reductions in nonpoint source pollutant loading and improvements in water quality for those navigable waters or watersheds within the State which were identified pursuant to subsection (a)(1)(A) of this section resulting from implementation of the management program.

(12) LIMITATION ON ADMINISTRATIVE COSTS.—For purposes of this subsection, administrative costs in the form of salaries, overhead, or indirect costs for services provided and charged against activities and programs carried out with a grant under this subsection shall not exceed in any fiscal year 10 percent of the amount of the grant in such year, except that costs of implementing enforcement and regulatory activities, education, training, technical assistance, demonstration projects, and technology transfer programs shall not be subject to this limitation.

(i) GRANTS FOR PROTECTING GROUNDWATER QUALITY.—

(1) ELIGIBLE APPLICANTS AND ACTIVITIES.—Upon application of a State for which a report submitted under subsection (a) and a plan submitted under subsection (b) is approved under this section, the Administrator shall make grants under this subsection to such State for the purpose of assisting such State in carrying out groundwater quality protection activities which the Administrator determines will advance the State toward implementation of a comprehensive nonpoint source pollution control program. Such activities shall include, but not be limited to, research, planning, groundwater assessment, demonstration programs, enforcement, technical assistance, education and training to protect the quality of groundwater and to prevent contamination of groundwater from nonpoint sources of pollution.

(2) APPLICATIONS.—An application for a grant under this subsection shall be in such form and shall contain such information as the Administrator may require.

(3) FEDERAL SHARE; MAXIMUM AMOUNT.—The Federal share of the cost of assisting a State in carrying out groundwater protection activities in any fiscal year under this subsection shall be 50 percent of the costs incurred by the State

in carrying out such activities, except that the maximum amount of Federal assistance which any State may receive under this subsection in any fiscal year shall not exceed $150,000.

(j) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out subsections (h) and (i) not to exceed $70,000,000 for fiscal year 1988, $100,000,000 per fiscal year for each of fiscal years 1989 and 1990, and $130,000,000 for fiscal year 1991; except that for each of such fiscal years not to exceed $7,500,000 may be made available to carry out subsection (i). Sums appropriated pursuant to this subsection shall remain available until expended.

(k) CONSISTENCY OF OTHER PROGRAMS AND PROJECTS WITH MANAGEMENT PROGRAMS.—The Administrator shall transmit to the Office of Management and Budget and the appropriate Federal departments and agencies a list of those assistance programs and development projects identified by each State under subsection (b)(2)(F) for which individual assistance applications and projects will be reviewed pursuant to the procedures set forth in Executive Order 12372 as in effect on September 17, 1983. Beginning not later than sixty days after receiving notification by the Administrator, each Federal department and agency shall modify existing regulations to allow States to review individual development projects and assistance applications under the identified Federal assistance programs and shall accommodate, according to the requirements and definitions of Executive Order 12372, as in effect on September 17, 1983, the concerns of the State regarding the consistency of such applications or projects with the State nonpoint source pollution management program.

(l) COLLECTION OF INFORMATION.—The Administrator shall collect and make available, through publications and other appropriate means, information pertaining to management practices and implementation methods, including, but not limited to, (1) information concerning the costs and relative efficiencies of best management practices for reducing nonpoint source pollution; and (2) available data concerning the relationship between water quality and implementation of various management practices to control nonpoint sources of pollution.

(m) SET ASIDE FOR ADMINISTRATIVE PERSONNEL.—Not less than 5 percent of the funds appropriated pursuant to subsection (j) for any fiscal year shall be available to the Administrator to maintain personnel levels at the Environmental Protection Agency at levels which are adequate to carry out this section in such year.

(33 U.S.C. 1329)

SEC. 320. NATIONAL ESTUARY PROGRAM.

(a) MANAGEMENT CONFERENCE.—

(1) NOMINATION OF ESTUARIES.—The Governor of any State may nominate to the Administrator an estuary lying in whole or in part within the State as an estuary of national significance and request a management conference to develop a comprehensive management plan for the estuary. The nomination shall document the need for the conference, the likelihood of

success, and information relating to the factors in paragraph (2).

(2) CONVENING OF CONFERENCE.—

(A) IN GENERAL.—In any case where the Administrator determines, on his own initiative or upon nomination of a State under paragraph (1), that the attainment or maintenance of that water quality in an estuary which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife and allows recreational activities, in and on the water, requires the control of point and nonpoint sources of pollution to supplement existing controls of pollution in more than one State, the Administrator shall select such estuary and convene a management conference.

(B) PRIORITY CONSIDERATION.—The Administrator shall give priority consideration under this section to Long Island Sound, New York and Connecticut; Narragansett Bay, Rhode Island; Buzzards Bay, Massachusetts; Massachusetts Bay, Massachusetts (including Cape Cod Bay and Boston Harbor);[1] Puget Sound, Washington; New York-New Jersey Harbor, New York and New Jersey; Delaware Bay, Delaware and New Jersey; Delaware Inland Bays, Delaware; Albermarle Sound, North Carolina; Sarasota Bay, Florida; San Francisco Bay, California; Santa Monica Bay, California; Galveston Bay, Texas;[2] Barataria-Terrebonne Bay estuary complex, Louisiana; Indian River Lagoon, Florida; and Peconic Bay, New York.

(3) BOUNDARY DISPUTE EXCEPTION.—In any case in which a boundary between two States passes through an estuary and such boundary is disputed and is the subject of an action in any court, the Administrator shall not convene a management conference with respect to such estuary before a final adjudication has been made of such dispute.

(b) PURPOSES OF CONFERENCE.—The purposes of any management conference convened with respect to an estuary under this subsection shall be to—

(1) assess trends in water quality, natural resources, and uses of the estuary;

(2) collect, characterize, and assess data on toxics, nutrients, and natural resources within the estuarine zone to identify the causes of environmental problems;

(3) develop the relationship between the inplace loads and point and nonpoint loadings of pollutants to the estuarine zone and the potential uses of the zone, water quality, and natural resources;

(4) develop a comprehensive conservation and management plan that recommends priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and bio-

[1] Both P.L. 100–653 and P.L. 100–658 inserted the same Massachusetts Bay phrase after Buzzards Bay; so that the phrase appears twice.

[2] P.L. 100–688, section 2001(3) inserted the Louisiana, Florida, New York bays after "Galveston, Texas;" which technically could not be executed.

logical integrity of the estuary, including restoration and maintenance of water quality, a balanced indigenous population of shellfish, fish and wildlife, and recreational activities in the estuary, and assure that the designated uses of the estuary are protected;

(5) develop plans for the coordinated implementation of the plan by the States as well as Federal and local agencies participating in the conference;

(6) monitor the effectiveness of actions taken pursuant to the plan; and

(7) review all Federal financial assistance programs and Federal development projects in accordance with the requirements of Executive Order 12372, as in effect on September 17, 1983, to determine whether such assistance program or project would be consistent with and further the purposes and objectives of the plan prepared under this section.

For purposes of paragraph (7), such programs and projects shall not be limited to the assistance programs and development projects subject to Executive Order 12372, but may include any programs listed in the most recent Catalog of Federal Domestic Assistance which may have an effect on the purposes and objectives of the plan developed under this section.

(c) MEMBERS OF CONFERENCE.—The members of a management conference convened under this section shall include, at a minimum, the Administrator and representatives of—

(1) each State and foreign nation located in whole or in part in the estuarine zone of the estuary for which the conference is convened;

(2) international, interstate, or regional agencies or entities having jurisdiction over all or a significant part of the estuary;

(3) each interested Federal agency, as determined appropriate by the Administrator;

(4) local governments having jurisdiction over any land or water within the estuarine zone, as determined appropriate by the Administrator; and

(5) affected industries, public and private educational institutions, and the general public, as determined appropriate by the Administrator.

(d) UTILIZATION OF EXISTING DATA.—In developing a conservation and management plan under this section, the management conference shall survey and utilize existing reports, data, and studies relating to the estuary that have been developed by or made available to Federal, interstate, State, and local agencies.

(e) PERIOD OF CONFERENCE.—A management conference convened under this section shall be convened for a period not to exceed 5 years. Such conference may be extended by the Administrator, and if terminated after the initial period, may be reconvened by the Administrator at any time thereafter, as may be necessary to meet the requirements of this section.

(f) APPROVAL AND IMPLEMENTATION OF PLANS.—

(1) APPROVAL.—Not later than 120 days after the completion of a conservation and management plan and after providing for public review and comment, the Administrator shall

approve such plan if the plan meets the requirements of this section and the affected Governor or Governors concur.

(2) IMPLEMENTATION.—Upon approval of a conservation and management plan under this section, such plan shall be implemented. Funds authorized to be appropriated under titles II and VI and section 319 of this Act may be used in accordance with the applicable requirements of this Act to assist States with the implementation of such plan.

(g) GRANTS.—

(1) RECIPIENTS.—The Administrator is authorized to make grants to State, interstate, and regional water pollution control agencies and entities, State coastal zone management agencies, interstate agencies, other public or nonprofit private agencies, institutions, organizations, and individuals.

(2) PURPOSES.—Grants under this subsection shall be made to pay for assisting research, surveys, studies, and modeling and other technical work necessary for the development of a conservation and management plan under this section.

(3) FEDERAL SHARE.—The amount of grants to any person (including a State, interstate, or regional agency or entity) under this subsection for a fiscal year shall not exceed 75 percent of the costs of such research, survey, studies, and work and shall be made on condition that the non-Federal share of such costs are provided from non-Federal sources.

(h) GRANT REPORTING.—Any person (including a State, interstate, or regional agency or entity) that receives a grant under subsection (g) shall report to the Administrator not later than 18 months after receipt of such grants and biennially there after on the progress being made under this section.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator not to exceed $12,000,000 per fiscal year for each of fiscal years 1987, 1988, 1989, 1990, and 1991 for—

(1) expenses related to the administration of management conferences under this section, not to exceed 10 percent of the amount appropriated under this subsection;

(2) making grants under subsection (g); and

(3) monitoring the implementation of a conservation and management plan by the management conference or by the Administrator, in any case in which the conference has been terminated.

The Administrator shall provide up to $5,000,000 per fiscal year of the sums authorized to be appropriated under this subsection to the Administrator of the National Oceanic and Atmospheric Administration to carry out subsection (j).

(j) RESEARCH.—

(1) PROGRAMS.—In order to determine the need to convene a management conference under this section or at the request of such a management conference, the Administrator shall coordinate and implement, through the National Marine Pollution Program Office and the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, as appropriate, for one or more estuarine zones—

(A) a long-term program of trend assessment monitoring measuring variations in pollutant concentrations, marine ecology, and other physical or biological environmental paramenters which may affect estuarine zones, to provide the Administrator the capacity to determine the potential and actual effects of alternative management strategies and measures;

(B) a program of ecosystem assessment assisting in the development of (i) baseline studies which determine the state of estuarine zones and the effects of natural and anthropogenic changes, and (ii) predictive models capable of translating information on specific discharges or general pollutant loadings within estuarine zones into a set of probable effects on such zones;

(C) a comprehensive water quality sampling program for the continuous monitoring of nutrients, chlorine, acid precipitation dissolved oxygen, and potentially toxic pollutants (including organic chemicals and metals) in estuarine zones, after consultation with interested State, local, interstate, or international agencies and review and analysis of all environmental sampling data presently collected from estuarine zones; and

(D) a program of research to identify the movements of nutrients, sediments and pollutants through estuarine zones and the impact of nutrients, sediments, and pollutants on water quality, the ecosystem, and designated or potential uses of the estuarine zones.

(2) REPORTS.—The Administrator, in cooperation with the Administrator of the National Oceanic and Atmospheric Administration, shall submit to the Congress no less often than biennially a comprehensive report on the activities authorized under this subsection including—

(A) a listing of priority monitoring and research needs;

(B) an assessment of the state and health of the Nation's estuarine zones, to the extent evaluated under this subsection;

(C) a discussion of pollution problems and trends in pollutant concentrations with a direct or indirect effect on water quality, the ecosystem, and designated or potential uses of each estuarine zone, to the extent evaluated under this subsection; and

(D) an evaluation of pollution abatement activities and management measures so far implemented to determine the degree of improvement toward the objectives expressed in subsection (b)(4) of this section.

(k) DEFINITIONS.—For purposes of this section, the terms "estuary" and "estuarine zone" have the meanings such terms have in section 104(n)(3) of this Act, except that the term "estuarine zone" shall also include associated aquatic ecosystems and those portions of tributaries draining into the estuary up to the historic height of migration of anadromous fish or the historic head of tidal influence, whichever is higher.

(33 U.S.C. 1330)

TITLE IV—PERMITS AND LICENSES

CERTIFICATION

SEC. 401. (a)(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under sections 301(b) and 302, and there is not an applicable standard under sections 306 and 307, the State shall so certify, except that any such certification shall not be deemed to satisfy section 511(c) of this Act. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

(2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State, the Administrator within thirty days of the date of notice of application for such Federal license or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirement in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure compliance with ap-

plicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.

(3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 301, 302, 303, 306, or 307 of this Act.

(4) Prior to the initial operation of any federally licensed or permitted facility or activity which may result in any discharge into the navigable waters and with respect to which a certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of section 301, 302, 303, 306, or 307 of this Act.

(5) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this Act that such facility or activity has been operated in violation of the

applicable provisions of section 301, 302, 303, 306, or 307 of this Act.

(6) Except with respect to a permit issued under section 402 of this Act, in any case where actual construction of a facility has been lawfully commenced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

(b) Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

(c) In order to implement the provisions of this section, the Secretary of the Army, acting throught the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licenses or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

(d) Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this Act, standard of performance under section 306 of this Act, or prohibition, effluent standard, or pretreatment standard under section 307 of this Act, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

(33 U.S.C. 1341)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

SEC. 402. (a)(1) Except as provided in sections 318 and 404 of this Act, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 301(a), upon condition that such discharge will meet either (A) all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or (B) prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act.

(2) The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.

(3) The permit program of the Administrator under paragraph (1) of this subsection, and permits issued thereunder, shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.

(4) All permits for discharges into the navigable waters issued pursuant to section 13 of the Act of March 3, 1899, shall be deemed to be permits issued under this title, and permits issued under this title shall be deemed to be permits issued under section 13 of the Act of March 3, 1899, and shall continue in force and effect for their term unless revoked, modified, or suspended in accordance with the provisions of this Act.

(5) No permit for a discharge into the navigable waters shall be issued under section 13 of the Act of March 3, 1899, after the date of enactment of this title. Each application for a permit under section 13 of the Act of March 3, 1899, pending on the date of enactment of this Act shall be deemed to be an application for a permit under this section. The Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this Act, to issue permits for discharges into the navigable waters within the jurisdiction of such State. The Administrator may exercise the authority granted him by the preceding sentence only during the period which begins on the date of enactment of this Act and ends either on the ninetieth day after the date of the first promulgation of guidelines required by section 304(h)(2) of this Act, or the date of approval by the Administrator of a permit program for such State under subsection (b) of this section, whichever date first occurs, and no such authorization to a State shall extend beyond the last day of such period. Each such permit shall be subject to such conditions as the Administrator determines are necessary to carry out the provisions of this Act. No such permit shall issue if the Administrator objects to such issuance.

(b) At any time after the promulgation of the guidelines required by subsection (h)(2) of section 304 of this Act, the Governor of each State desiring to administer its own permit program for discharges into navigable waters within its jurisdiction may submit to the Administrator a full and complete discription of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State water pollution control agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program. The Administrator shall approve each such submitted program unless he determines that adequate authority does not exist:

(1) To issue permits which—

(A) apply, and insure compliance with, any applicable requirements of sections 301, 302, 306, 307, and 403;

(B) are for fixed terms not exceeding five years; and

(C) can be terminated or modified for cause including, but not limited to, the following:

(i) violation of any condition of the permit;

(ii) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

(iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

(D) control the disposal of pollutants into wells;

(2)(A) To issue permits which apply, and insure compliance with, all applicable requirements of section 308 of this Act, or

(B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 308 of this Act;

(3) To insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application;

(4) To insure that the Administrator receives notice of each application (including a copy thereof) for a permit;

(5) To insure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing;

(6) To insure that no permit will be issued if, in the judgment of the Secretary of the Army acting through the Chief of Engineers, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby;

(7) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement;

(8) To insure that any permit for a discharge from a publicly owned treatment works includes conditions to require the identification in terms of character and volume of pollutants of any significant source introducing pollutants subject to pretreatment standards under section 307(b) of this Act into such works and a program to assure compliance with such pretreatment standards by each such source, in addition to adequate notice to the permitting agency of (A) new introductions into such works of pollutants from any source which would be a new source as defined in section 306 if such source were discharging pollutants, (B) new introductions of pollutants into such works from a source which would be subject to section 301 if it were discharging such pollutants, or (C) a substantial change in volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time of issuance of the permit. Such notice shall include information on the quality and quantity of effluent to be in-

troduced into such treatment works and any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works; and

(9) To insure that any industrial user of any publicly owned treatment works will comply with sections 204(b), 307, and 308.

(c)(1) Not later than ninety days after the date on which a State has submitted a program (or revision thereof) pursuant to subsection (b) of this section, the Administrator shall suspend the issuance of permits under subsection (a) of this section as to those discharges subject to such program unless he determines that the State permit program does not meet the requirements of subsection (b) of this section or does not conform to the guidelines issued under section 304(i)(2) of this Act. If the Administrator so determines, he shall notify the State or any revisons or modifications necessary to conform to such requirements or guidelines.

(2) Any State permit program under this section shall at all times be in accordance with this section and guidelines promulgated pursuant to section 304(h)(2) of this Act.

(3) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

(4) LIMITATIONS ON PARTIAL PERMIT PROGRAM RETURNS AND WITHDRAWALS.—A State may return to the Administrator administration, and the Administrator may withdraw under paragraph (3) of this subsection approval, of—

(A) a State partial permit program approved under subsection (n)(3) only if the entire permit program being administered by the State department or agency at the time is returned or withdrawn; and

(B) a State partial permit program approved under subsection (n)(4) only if an entire phased component of the permit program being administered by the State at the time is returned or withdrawn.

(d)(1) Each State shall transmit to the Administrator a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State.

(2) No permit shall issue (A) if the Administrator within ninety days of the date of his notification under subsection (b)(5) of this section objects in writing to the issuance of such permit, or (B) if the Administrator within ninety days of the date of transmittal of the proposed permit by the State objects in writing to the issuance of such permit as being outside the guidelines and requirements of this Act. Whenever the Administrator objects to the issuance of a permit under this paragraph such written objection shall contain a statement of the reasons for such objection and the effluent limita-

tions and conditions which such permit would include if it were issued by the Administrator.

(3) The Administrator may, as to any permit application, waive paragraph (2) of this subsection.

(4) In any case where, after the date of enactment of this paragraph, the Administrator, pursuant to paragraph (2) of this subsection, objects to the issuance of a permit, on request of the State, a public hearing shall be held by the Administrator on such objection. If the State does not resubmit such permit revised to meet such objection within 30 days after completion of the hearing, or, if no hearing is requested within 90 days after the date of such objection, the Administrator may issue the permit pursuant to subsection (a) of this section for such source in accordance with the guidelines and requirements of this Act.

(e) In accordance with guidelines promulgated pursuant to subsection (h)(2) of section 304 of this Act, the Administrator is authorized to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any category (including any class, type, or size within such category) of point sources within the State submitting such program.

(f) The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

(g) Any permit issued under this section for the discharge of pollutants into the navigable waters from a vessel or other floating craft shall be subject to any applicable regulations promulgated by the Secretary of the Department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

(h) In the event any condition of a permit for discharges from a treatment works (as defined in section 212 of this Act) which is publicly owned is violated, a State with a program approved under subsection (b) of this section or the Administrator, where no State program is approved or where the Administrator determines pursuant to section 309(a) of this Act that a State with an approved program has not commenced appropriate enforcement action with respect to such permit, may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source not utilizing such treatment works prior to the finding that such condition was violated.

(i) Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 309 of this Act.

(j) A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purpose of reproduction.

(k) Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 309 and 505, with sections 301, 302, 306, 307, and 403, except any standard im-

posed under section 307 for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 301, 306, or 402 of this Act, or (2) section 13 of the Act of March 3, 1899, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date of enactment which source is not subject to section 13 of the Act of March 3, 1899, the discharge by such source shall not be a violation of this Act if such a source applies for a permit for discharge pursuant to this section within such 180-day period.

(l) LIMITATION ON PERMIT REQUIREMENT.—

(1) AGRICULTURAL RETURN FLOWS.—The Administrator shall not require a permit under this section for discharges composed entirely of return flows from irrigated agriculture, nor shall the Administrator directly or indirectly, require any State to require such a permit.

(2) STORMWATER RUNOFF FROM OIL, GAS, AND MINING OPERATIONS.—The Administrator shall not require a permit under this section, nor shall the Administrator directly or indirectly require any State to require a permit, for discharges of stormwater runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying precipitation runoff and which are not contaminated by contact with, or do not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.

(m) ADDITIONAL PRETREATMENT OF CONVENTIONAL POLLUTANTS NOT REQUIRED.—To the extent a treatment works (as defined in section 212 of this Act) which is publicly owned is not meeting the requirements of a permit issued under this section for such treatment works as a result of inadequate design or operation of such treatment works, the Administrator, in issuing a permit under this section, shall not require pretreatment by a person introducing conventional pollutants identified pursuant to a section 304(a)(4) of this Act into such treatment works other than pretreatment required to assure compliance with pretreatment standards under subsection (b)(8) of this section and section 307(b)(1) of this Act. Nothing in this subsection shall affect the Administrator's authority under sections 307 and 309 of this Act, affect State and local authority under sections 307(b)(4) and 510 of this Act, relieve such treatment works of its obligations to meet requirements established under this Act, or otherwise preclude such

works from pursuing whatever feasible options are available to meet its responsibility to comply with its permit under this section.

(n) PARTIAL PERMIT PROGRAM.—

(1) STATE SUBMISSION.—The Governor of a State may submit under subsection (b) of this section a permit program for a portion of the discharges into the navigable waters in such State.

(2) MINIMUM COVERAGE.—A partial permit program under this subsection shall cover, at a minimum, administration of a major category of the discharges into the navigable waters of the State or a major component of the permit program required by subsection (b).

(3) APPROVAL OF MAJOR CATEGORY PARTIAL PERMIT PROGRAMS.—The Administrator may approve a partial permit program covering administration of a major category of discharges under this subsection if—

(A) such program represents a complete permit program and covers all of the discharges under the jurisdiction of a department or agency of the State; and

(B) the Administrator determines that the partial program represents a significant and identifiable part of the State program required by subsection (b).

(4) APPROVAL OF MAJOR COMPONENT PARTIAL PERMIT PROGRAMS.—The Administrator may approve under this subsection a partial and phased permit program covering administration of a major component (including discharge categories) of a State permit program required by subsection (b) if—

(A) the Administrator determines that the partial program represents a significant and identifiable part of the State program required by subsection (b); and

(B) the State submits, and the Administrator approves, a plan for the State to assume administration by phases of the remainder of the State program required by subsection (b) by a specified date not more than 5 years after submission of the partial program under this subsection and agrees to make all reasonable efforts to assume such administration by such date.

(o) ANTI-BACKSLIDING.—

(1) GENERAL PROHIBITION.—In the case of effluent limitations established on the basis of subsection (a)(1)(B) of this section, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit. In the case of effluent limitations established on the basis of section 301(b)(1)(C) or section 303(d) or (e), a permit may not be renewed, reissued, or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit except in compliance with section 303(d)(4).

(2) EXCEPTIONS.—A permit with respect to which paragraph (1) applies may be renewed, reissued, or modified to con-

tain a less stringent effluent limitation applicable to a pollutant if—

(A) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

(B)(i) information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or

(ii) the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B);

(C) a less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy;

(D) the permittee has received a permit modification under section 301(c), 301(g), 301(h), 301(i), 301(k), 301(n), or 316(a); or

(E) the permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

Subparagraph (B) shall not apply to any revised waste load allocations or any alternative grounds for translating water quality standards into effluent limitations, except where the cumulative effect of such revised allocations results in a decrease in the amount of pollutants discharged into the concerned waters, and such revised allocations are not the result of a discharger eliminating or substantially reducing its discharge of pollutants due to complying with the requirements of this Act or for reasons otherwise unrelated to water quality.

(3) LIMITATIONS.—In no event may a permit with respect to which paragraph (1) applies be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified. In no event may such a permit to discharge into waters be renewed, reissued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under section 303 applicable to such waters.

(p) MUNICIPAL AND INDUSTRIAL STORMWATER DISCHARGES.—

(1) GENERAL RULE.—Prior to October 1, 1994, the Administrator or the State (in the case of a permit program approved under section 402 of this Act) shall not require a permit under this section for discharges composed entirely of stormwater.

(2) EXCEPTIONS.—Paragraph (1) shall not apply with respect to the following stormwater discharges:

(A) A discharge with respect to which a permit has been issued under this section before the date of the enactment of this subsection.

(B) A discharge associated with industrial activity.

(C) A discharge from a municipal separate storm sewer system serving a population of 250,000 or more.

(D) A discharge from a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000.

(E) A discharge for which the Administrator or the State, as the case may be, determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

(3) PERMIT REQUIREMENTS.—

(A) INDUSTRIAL DISCHARGES.—Permits for discharges associated with industrial activity shall meet all applicable provisions of this section and section 301.

(B) MUNICIPAL DISCHARGE.—Permits for discharges from municipal storm sewers—

(i) may be issued on a system- or jurisdiction-wide basis;

(ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and

(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

(4) PERMIT APPLICATION REQUIREMENTS.—

(A) INDUSTRIAL AND LARGE MUNICIPAL DISCHARGES.—Not later than 2 years after the date of the enactment of this subsection, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraphs (2)(B) and (2)(C). Applications for permits for such discharges shall be filed no later than 3 years after such date of enactment. Not later than 4 year after such date of enactment the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(B) OTHER MUNICIPAL DISCHARGES.—Not later than 4 years after the date of the enactment of this subsection, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraph (2)(D). Applications for permits for such discharges shall be filed no later than 5 years after such date of enactment. Not later than 6 years

after such date of enactment, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(5) STUDIES.—The Administrator, in consultation with the States, shall conduct a study for the purposes of—

(A) identifying those stormwater discharges or classes of stormwater discharges for which permits are not required pursuant to paragraphs (1) and (2) of this subsection;

(B) determining, to the maximum extent practicable, the nature and extent of pollutants in such discharges; and

(C) establishing procedures and methods to control stormwater discharges to the extent necessary to mitigate impacts on water quality.

Not later than October 1, 1988, the Administrator shall submit to Congress a report on the results of the study described in subparagraphs (A) and (B). Not later than October 1, 1989, the Administrator shall submit to Congress a report on the results of the study described in subparagraph (C).

(6) REGULATIONS.—Not later than October 1, 1993, the Administrator, in consultation with State and local officials, shall issue regulations (based on the results of the studies conducted under paragraph (5)) which designate stormwater discharges, other than those discharges described in paragraph (2), to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources. The program shall, at a minimum, (A) establish priorities, (B) establish requirements for State stormwater management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

(q) COMBINED SEWER OVERFLOWS.—

(1) REQUIREMENT FOR PERMITS, ORDERS, AND DECREES.—Each permit, order, or decree issued pursuant to this Act after the date of enactment of this subsection for a discharge from a municipal combined storm and sanitary sewer shall conform to the Combined Sewer Overflow Control Policy signed by the Administrator on April 11, 1994 (in this subsection referred to as the "CSO control policy").

(2) WATER QUALITY AND DESIGNATED USE REVIEW GUIDANCE.—Not later than July 31, 2001, and after providing notice and opportunity for public comment, the Administrator shall issue guidance to facilitate the conduct of water quality and designated use reviews for municipal combined sewer overflow receiving waters.

(3) REPORT.—Not later than September 1, 2001, the Administrator shall transmit to Congress a report on the progress made by the Environmental Protection Agency, States, and municipalities in implementing and enforcing the CSO control policy.

(33 U.S.C. 1342)

OCEAN DISCHARGE CRITERIA

SEC. 403. (a) No permit under section 402 of this Act for a discharge into the territorial sea, the waters of the contiguous zone, or the oceans shall be issued, after promulgation of guidelines established under subsection (c) of this section, except in compliance with such guidelines. Prior to the promulgation of such guidelines, a permit may be issued under such section 402 if the Administrator determines it to be in the public interest.

(b) The requirements of subsection (d) of section 402 of this Act may not be waived in the case of permits for discharges into the territorial sea.

(c)(1) The Administrator shall, within one hundred and eighty days after enactment of this Act (and from time to time thereafter), promulgate guidelines for determining the degradation of the waters of the territorial seas, the contiguous zone, and the oceans, which shall include:

(A) the effect of disposal of pollutants on human health or welfare, including but not limited to plankton, fish, shellfish, wildlife, shorelines, and beaches;

(B) the effect of disposal of pollutants on marine life including the transfer, concentration, and dispersal of pollutants or their byproducts through biological, physical, and chemical processes; changes in marine ecosystem diversity, productivity, and stability; and species and community population changes;

(C) the effect of disposal, of pollutants on esthetic, recreation, and economic values;

(D) the persistence and permanence of the effects of disposal of pollutants;

(E) the effect of the disposal at varying rates, of particular volumes and concentrations of pollutants;

(F) other possible locations and methods of disposal or recycling of pollutants including land-based alternatives; and

(G) the effect on alternate uses of the oceans, such as mineral exploitation and scientific study.

(2) In any event where insufficient information exists on any proposed discharge to make a reasonable judgment on any of the guidelines established pursuant to this subsection no permit shall be issued under section 402 of this Act.

(33 U.S.C. 1343)

PERMITS FOR DREDGED OR FILL MATERIAL

SEC. 404. (a) The Secretary may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites. Not later than the fifteenth day after the date an applicant submits all the information required to complete an application for a permit under this subsection, the Secretary shall publish the notice required by this subsection.

(b) Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary (1) through the application of guidelines developed by the Administrator, in conjunction with the Secretary which guidelines shall be based upon criteria comparable to the criteria applicable to the ter-

ritorial seas, the contiguous zone, and the ocean under section 403(c), and (2) in any case where such guidelines under clause (1) alone would prohibit the specification of a site, through the application additionally of the economic impact of the site on navigation and anchorage.

(c) The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.

(d) The term "Secretary" as used in this section means the Secretary of the Army, acting through the Chief of Engineers.

(e)(1) In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary may, after notice and opportunity for public hearing, issue general permits on a State, regional, or nationwide basis for any category of activities involving discharges of dredged or fill material if the Secretary determines that the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment. Any general permit issued under this subsection shall (A) be based on the guidelines described in subsection (b)(1) of this section, and (B) set forth the requirements and standards which shall apply to any activity authorized by such general permit.

(2) No general permit issued under this subsection shall be for a period of more than five years after the date of its issuance and such general permit may be revoked or modified by the Secretary if, after opportunity for public hearing, the Secretary determines that the activities authorized by such general permit have an adverse impact on the environment or such activities are more appropriately authorized by individual permits.

(f)(1) Except as provided in paragraph (2) of this subsection, the discharge of dredge or fill material—

(A) from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices;

(B) for the purpose of maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures;

(C) for the purpose of construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance of drainage ditches;

(D) for the purpose of construction of temporary sedimentation basins on a construction site which does not include placement of fill material into the navigable waters;

(E) for the purpose of construction or maintenance of farm roads or forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained, in accordance with best management practices, to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized;

(F) resulting from any activity with respect to which a State has an approved program under section 208(b)(4) which meets the requirements of subparagraphs (B) and (C) of such section,

is not prohibited by or otherwise subject to regulation under this section or section 301(a) or 402 of this Act (except for effluent standards or prohibitions under section 307).

(2) Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have a permit under this section.

(g)(1) The Governor of any State desiring to administer its own individual and general permit program for the discharge of dredged or fill material into the navigable waters (other than those waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark, or mean higher high water mark on the west coast, including wetlands adjacent thereto), within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program.

(2) Not later than the tenth day after the date of the receipt of the program, and statement submitted by any State under paragraph (1) of this subsection, the Administrator shall provide copies of such program and statement to the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service.

(3) Not later than the ninetieth day after the date of the receipt by the Administrator of the program and statement submitted by any State, under paragraph (1) of this subsection, the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, shall submit any com-

ments with respect to such program and statement to the Administrator in writing.

(h)(1) Not later than the one-hundred-twentieth day after the date of the receipt by the Administrator of a program and statement submitted by any State under paragraph (1) of this subsection, the Administrator shall determine, taking into account any comments submitted by the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, pursuant to subsection (g) of this section, whether such State has the following authority with respect to the issuance of permits pursuant to such program:

(A) To issue permits which—

(i) apply, and assure compliance with, any applicable requirements of this section, including, but not limited to, the guidelines established under subsection (b)(1) of this section, and sections 307 and 403 of this Act;

(ii) are for fixed terms not exceeding five years; and

(iii) can be terminated or modified for cause including, but not limited to, the following:

(I) violation of any condition of the permit;

(II) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

(III) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(B) To issue permits which apply, and assure compliance with, all applicable requirements of section 308 of this Act, or to inspect, monitor, enter, and requrie reports to at least the same extent as required in section 308 of this Act.

(C) To assure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application.

(D) To assure that the Administrator receives notice of each application (including a copy thereof) for a permit.

(E) To assure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendation to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing.

(F) To assure that no permit will be issued if, in the judgment of the Secretary, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby.

(G) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement.

(H) To assure continued coordination with Federal and Federal-State water-related planning and review processes.

(2) If, with respect to a State program submitted under subsection (g)(1) of this section, the Administrator determines that such State—

(A) has the authority set forth in paragraph (1) of this subsection, the Administrator shall approve the program and so notify (i) such State, and (ii) the Secretary, who upon subsequent notification from such State that it is administering such program, shall suspend the issuance of permits under subsection (a) and (e) of this section for activities with respect to which a permit may be issued pursuant to such State program; or

(B) does not have the authority set forth in paragraph (1) of this subsection, the Administrator shall so notify such State, which notification shall also describe the revisions or modifications necessary so that such State may resubmit such program for a determination by the Administrator under this subsection.

(3) If the Administrator fails to make a determination with respect to any program submitted by a State under subsection (g)(1) of this section within one-hundred-twenty days after the date of the receipt of such program, such program shall be deemed approved pursuant to paragraph (2)(A) of this subsection and the Administrator shall so notify such State and the Secretary who, upon subsequent notification from such State that it is administering such program, shall suspend the issuance of permits under subsection (a) and (e) of this section for activities with respect to which a permit may be issued by such State.

(4) After the Secretary receives notification from the Administrator under paragraph (2) or (3) of this subsection that a State permit program has been approved, the Secretary shall transfer any applications for permits pending before the Secretary for activities with respect to which a permit may be issued pursuant to such State program to such State for appropriate action.

(5) Upon notification from a State with a permit program approved under this subsection that such State intends to administer and enforce the terms and conditions of a general permit issed by the Secretary under subsection (e) of this section with respect to activities in such State to which such general permit applies, the Secretary shall suspend the administration and enforcement of such general permit with respect to such activities.

(i) Whenever the Administrator determines after public hearing that a State is not administering a program approved under section (h)(2)(A) of this section, in accordance with this section, including, but not limited to, the guidelines established under subsection (b)(1) of this section, the Administrator shall so notify the State, and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days after the date of the receipt of such notification, the Administrator shall (1) withdraw approval of such program until the Administrator determines such corrective action has been taken, and (2) notify the Secretary that the Secretary shall resume the program for the issuance of permits under subsections (a) and (e) of this section for activities with respect to which the State was issuing permits and that such authority of the Secretary shall continue in effect until such time as the

Administrator makes the determination described in clause (1) of this subsection and such State again has an approved program.

(j) Each State which is administering a permit program pursuant to this section shall transmit to the Administrator (1) a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State, and (2) a copy of each proposed general permit which such State intends to issue. Not later than the tenth day after the date of the receipt of such permit application or such proposed general permit, the Administrator shall provide copies of such permit application or such proposed general permit to the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service. If the Administrator intends to provide written comments to such State with respect to such permit application or such proposed general permit, he shall so notify such State not later than the thirtieth day after the date of the receipt of such application or such proposed general permit and provide such written comments to such State, after consideration of any comments made in writing with respect to such application or such proposed general permit by the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, not later than the ninetieth day after the date of such receipt. If such State is so notified by the Administrator, it shall not issue the proposed permit until after the receipt of such comments from the Administrator, or after such ninetieth day, whichever first occurs. Such State shall not issue such proposed permit after such ninetieth day if it has received such written comments in which the Administrator objects (A) to the issuance of such proposed permit and such proposed permit is one that has been submitted to the Administrator pursuant to subsection (h)(1)(E), or (B) to the issuance of such proposed permit as being outside the requirements of this section, including, but not limited to, the guidelines developed under subsection (b)(1) of this section unless it modifies such proposed permit in accordance with such comments. Whenever the Administrator objects to the issuance of a permit under the preceding sentence such written objection shall contain a statement of the reasons for such objection and the conditions which such permit would include if it were issued by the Administrator. In any case where the Administrator objects to the issuance of a permit, on request of the State, a public hearing shall be held by the Administrator on such objection. If the State does not resubmit such permit revised to meet such objection within 30 days after completion of the hearing or, if no hearing is requested within 90 days after the date of such objection, the Secretary may issue the permit pursuant to subsection (a) or (e) of this section, as the case may be, for such source in accordance with the guidelines and requirements of this Act.

(k) In accordance with guidelines promulgated pursuant to subsection (i)(2) of section 304 of this Act, the Administrator is authorized to waive the requirements of subsection (j) of this section at the time of the approval of a program pursuant to subsection (h)(2)(A) of this section for any category (including any class, type,

or size within such category) of discharge within the State submitting such program.

(l) The Administrator shall promulgate regulations establishing categories of discharges which he determines shall not be subject to the requirements of subsection (j) of this section in any State with a program approved pursuant to subsection (h)(2)(A) of this section. The Administrator may distinguish among classes, types, and sizes within any category of discharges.

(m) Not later than the ninetieth day after the date on which the Secretary notifies the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service that (1) an application for a permit under subsection (a) of this section has been received by the Secretary, or (2) the Secretary proposes to issue a general permit under subsection (e) of this section, the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, shall submit any comments with respect to such application or such proposed general permit in writing to the Secretary.

(n) Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 309 of this Act.

(o) A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or portion thereof, shall further be available on request for the purpose of reproduction.

(p) Compliance with a permit issued pursuant to this section, including any activity carried out pursuant to a general permit issued under this section, shall be deemed compliance, for purposes of sections 309 and 505, with sections 301, 307, and 403.

(q) Not later than the one-hundred-eightieth day after the date of enactment of this subsection, the Secretary shall enter into agreements with the Administrator, the Secretaries of the Departments of Agriculture, Commerce, Interior, and Transportation, and the heads of other appropriate Federal agencies to minimize, to the maximum extent practicable, duplication, needless paperwork, and delays in the issuance of permits under this section. Such agreements shall be developed to assure that, to the maximum extent practicable, a decision with respect to an application for a permit under subsection (a) of this section will be made not later than the ninetieth day after the date the notice of such application is published under subsection (a) of this section.

(r) The discharge of dredged or fill material as part of the construction of a Federal project specifically authorized by Congress, whether prior to or on or after the date of enactment of this subsection, is not prohibited by or otherwise subject to regulation under this section, or a State program approved under this section, or section 301(a) or 402 of the Act (except for effluent standards or prohibitions under section 307), if information on the effects of such discharge, including consideration of the guidelines developed under subsection (b)(1) of this section, is included in an environmental impact statement for such project pursuant to the National Environmental Policy Act of 1969 and such environmental impact statement has been submitted to Congress before the actual discharge of dredged or fill material in connection with the construc-

tion of such project and prior to either authorization of such project or an appropriation of funds for each construction.

(s)(1) Whenever on the basis of any information available to him the Secretary finds that any person is in violation of any condition or limitation set forth in a permit issued by the Secretary under this section, the Secretary shall issue an order requiring such persons to comply with such condition or limitation, or the Secretary shall bring a civil action in accordance with paragraph (3) of this subsection.

(2) A copy of any order issued under this subsection shall be sent immediately by the Secretary to the State in which the violation occurs and other affected States. Any order issued under this subsection shall be by personal service and shall state with reasonable specificity the nature of the violation, specify a time for compliance, not to exceed thirty days, which the Secretary determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection is issued to a corporation, a copy of such order shall be served on any appropriate corporate officers.

(3) The Secretary is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction for any violation for which he is authorized to issue a compliance order under paragraph (1) of this subsection. Any action under this paragraph may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such acton [1] shall be given immediately to the appropriate State.

(4) Any person who violates any condition or limitation in a permit issued by the Secretary under this section, and any person who violates any order issued by the Secretary under paragraph (1) of this subsection, shall be subject to a civil penalty not to exceed $25,000 per day for each violation. In determining the amount of a civil penalty the court shall consider the seriousness of the violation or violations, the economic benefit (if any) resulting from the violaltion, any history of such violations, any good-faith efforts to comply with the applicable requirements, the economic impact of the penalty on the violator, and such other matters as justice may require.

(t) Nothing in the section shall preclude or deny the right of any State or interstate agency to control the discharge of dredged or fill material in any portion of the navigable waters within the jurisdiction of such State, including any activity of any Federal agency, and each such agency shall comply with such State or interstate requirements both substantive and procedural to control the discharge of dredged or fill material to the same extent that any person is subject to such requirements. This section shall not be construed as affecting or impairing the authority of the Secretary to maintain navigation.

(33 U.S.C. 1344)

[1] So in law. Probably should be "action".

DISPOSAL OF SEWAGE SLUDGE

SEC. 405. (a) Notwithstanding any other provision of this Act or of any other law, in the case where the disposal of sewage sludge resulting from the operation of a treatment works as defined in section 212 of this Act (including the removal of in-place sewage sludge from one location and its deposit at another location) would result in any pollutant from such sewage sludge entering the navigable waters, such disposal is prohibited except in accordance with a permit issued by the Administrator under section 402 of this Act.

(b) The Administrator shall issue regulations governing the issuance of permits for the disposal of sewage sludge subject to subsection (a) of this section and section 402 of this Act. Such regulations shall require the application to such disposal of each criterion, factor, procedure, and requirement applicable to a permit issued under section 402 of this title.

(c) Each State desiring to administer its own permit program for disposal of sewage sludge subject to subsection (a) of this section within its jurisdiction may do so in accordance with section 402 of this Act.

(d) REGULATIONS.—

(1) REGULATIONS.—The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this subsection and from time to time thereafter, regulations poroviding guidelines for the disposal of sludge and the utilization of sludge for various purposes. Such regulations shall—

(A) identify uses for sludge, including disposal;

(B) specify factors to be taken into account in determining the measures and practices applicable to each such use or disposal (including publication of information on costs);

(C) identify concentrations of pollutants which interfere with each such use or disposal.

The Administrator is authorized to revise any regulation issued under this subsection.

(2) IDENTIFICATION AND REGULATION OF TOXIC POLLUTANTS.—

(A) ON BASIS OF AVAILABLE INFORMATION.—

(i) PROPOSED REGULATIONS.—Not later than November 30, 1986, the Administrator shall identify those toxic pollutants which, on the basis of available information on their toxicity, persistence, concentration, mobility, or potential for exposure, may be present in sewage sludge in concentrations which may adversely affect public health or the environment, and propose regulations specifying acceptable management practices for sewage sludge containing each such toxic pollutant and establishing numerical limitations for each such pollutant for each use identified under paragraph (1)(A).

(ii) FINAL REGULATIONS.—Not later than August 31, 1987, and after opportunity for public hearing, the

Administrator shall promulgate the regulations required by subparagraph (A)(i).

(B) OTHERS.—

(i) PROPOSED REGULATIONS.—Not later than July 31, 1987, the Administrator shall identify those toxic pollutants not identified under subparagraph (A)(i) which may be present in sewage sludge in concentrations which may adversely affect public health or the environment, and propose regulations specifying acceptable management practices for sewage sludge containing each such toxic pollutant and establishing numerical limitations for each pollutant for each such use identified under paragraph (1)(A).

(ii) FINAL REGULATIONS.—Not later than June 15, 1988, the Administrator shall promulate the regulations required by subparagraph (B)(i).

(C) REVIEW.—From time to time, but not less often than every 2 years, the Administrator shall review the regulations promulgated under this paragraph for the purpose of identifying additional toxic pollutants and promulgating regulations for such pollutants consistent with the requirements of this paragraph.

(D) MINIMUM STANDARDS; COMPLIANCE DATE.—The management practices and numerical criteria established under subparagraphs (A), (B), and (C) shall be adequate to protect public health and the environment from any reasonably anticipated adverse effects of each pollutant. Such regulations shall require compliance as expeditiously as practicable but in no case later than 12 months after their publication, unless such regulations require the construction of new pollution control facilities, in which case the regulations shall require compliance as expeditiously as practicable but in no case later than two years from the date of their publication.

(3) ALTERNATIVE STANDARDS.—For purposes of this subsection, if, in the judgment of the Administrator, it is not feasible to prescribe or enforce a numerical limitation for a pollutant identified under paragraph (2), the Administrator may instead promulgate a design, equipment, management practice, or operational standard, or combination thereof, which in the Administrator's judgment is adequate to protect public health and the environment from any reasonably anticipated adverse effects of such pollutant. In the event the Administrator promulgates a design or equipment standard under this subsection, the Administrator shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(4) CONDITIONS ON PERMITS.—Prior to the promulgation of the regulations required by paragraph (2), the Administrator shall impose conditions in permits issued to publicly owned treatment works under section 402 of this Act or take such other measures as the Administrator deems appropriate to protect public health and the environment from any adverse effects which may occur from toxic pollutants in sewage sludge.

(5) LIMITATION ON STATUTORY CONSTRUCTION.—Nothing in this section is intended to waive more stringent requirements established by this Act or any other law.

(e) MANNER OF SLUDGE DISPOSAL.—The determination of the manner of disposal or use of sludge is a local determination, except that it shall be unlawful for any person to dispose of sludge from a publicly owned treatment works or any other treatment works treating domestic sewage for any use for which regulations have been established pursuant to subsection (d) of this section, except in accordance with such regulations.

(f) IMPLEMENTATION OF REGULATIONS.—

(1) THROUGH SECTION 402 PERMITS.—Any permit issued under section 402 of this Act to a publicly owned treatment works or any other treatment works treating domestic sewage shall include requirements for the use and disposal of sludge that implement the regulations established pursuant to subsection (d) of this section, unless such requirements have been included in a permit issued under the appropriate provisions of subtitle C of the Solid Waste Disposal Act, part C of the Safe Drinking Water Act, the Marine Protection, Research, and Sanctuaries Act of 1972, or the Clean Air Act, or under State permit programs approved by the Administrator, where the Administrator determines that such programs assure compliance with any applicable requirements of this section. Not later than December 15, 1986, the Administrator shall promulgate procedures for approval of State programs pursuant to this paragraph.

(2) THROUGH OTHER PERMITS.—In the case of a treatment works described in paragraph (1) that is not subject to section 402 of this Act and to which none of the other above listed permit programs nor approved State permit authority apply, the Administrator may issue a permit to such treatment works solely to impose requirements for the use and disposal of sludge that implement the regulations established pursuant to subsection (d) of this section. The Administrator shall include in the permit appropriate requirements to assure compliance with the regulations established pursuant to subsection (d) of this section. The Administrator shall establish procedures for issuing permits pursuant to this paragraph.

(g) STUDIES AND PROJECTS.—

(1) GRANT PROGRAM; INFORMATION GATHERING.—The Administrator is authorized to conduct or initiate scientific studies, demonstration projects, and public information and education projects which are designed to promote the safe and beneficial management or use of sewage sludge for such purposes as aiding the restoration of abandoned mine sites, conditioning soil for parks and recreation areas, agricultural and horticultural uses, and other beneficial purposes. For the purposes of carrying out this subsection, the Administrator may make grants to State water pollution control agencies, other public or nonprofit agencies, institutions, organizations, and individuals. In cooperation with other Federal departments and agencies, other public and private agencies, institutions, and organizations, the Administrator is authorized to collect and

disseminate information pertaining to the safe and beneficial use of sewage sludge.

(2) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of carrying out the scientific studies, demonstration projects, and public information and education projects authorized in this section, there is authorized to be appropriated for fiscal years beginning after September 30, 1986, not to exceed $5,000,000.

(33 U.S.C. 1345)

SEC. 406. COASTAL RECREATION WATER QUALITY MONITORING AND NOTIFICATION.

(a) MONITORING AND NOTIFICATION.—

(1) IN GENERAL.—Not later than 18 months after the date of the enactment of this section, after consultation and in cooperation with appropriate Federal, State, tribal, and local officials (including local health officials), and after providing public notice and an opportunity for comment, the Administrator shall publish performance criteria for—

(A) monitoring and assessment (including specifying available methods for monitoring) of coastal recreation waters adjacent to beaches or similar points of access that are used by the public for attainment of applicable water quality standards for pathogens and pathogen indicators; and

(B) the prompt notification of the public, local governments, and the Administrator of any exceeding of or likelihood of exceeding applicable water quality standards for coastal recreation waters described in subparagraph (A).

(2) LEVEL OF PROTECTION.—The performance criteria referred to in paragraph (1) shall provide that the activities described in subparagraphs (A) and (B) of that paragraph shall be carried out as necessary for the protection of public health and safety.

(b) PROGRAM DEVELOPMENT AND IMPLEMENTATION GRANTS.—

(1) IN GENERAL.—The Administrator may make grants to States and local governments to develop and implement programs for monitoring and notification for coastal recreation waters adjacent to beaches or similar points of access that are used by the public.

(2) LIMITATIONS.—

(A) IN GENERAL.—The Administrator may award a grant to a State or a local government to implement a monitoring and notification program if—

(i) the program is consistent with the performance criteria published by the Administrator under subsection (a);

(ii) the State or local government prioritizes the use of grant funds for particular coastal recreation waters based on the use of the water and the risk to human health presented by pathogens or pathogen indicators;

(iii) the State or local government makes available to the Administrator the factors used to prioritize the use of funds under clause (ii);

(iv) the State or local government provides a list of discrete areas of coastal recreation waters that are subject to the program for monitoring and notification for which the grant is provided that specifies any coastal recreation waters for which fiscal constraints will prevent consistency with the performance criteria under subsection (a); and

(v) the public is provided an opportunity to review the program through a process that provides for public notice and an opportunity for comment.

(B) GRANTS TO LOCAL GOVERNMENTS.—The Administrator may make a grant to a local government under this subsection for implementation of a monitoring and notification program only if, after the 1-year period beginning on the date of publication of performance criteria under subsection (a)(1), the Administrator determines that the State is not implementing a program that meets the requirements of this subsection, regardless of whether the State has received a grant under this subsection.

(3) OTHER REQUIREMENTS.—

(A) REPORT.—A State recipient of a grant under this subsection shall submit to the Administrator, in such format and at such intervals as the Administrator determines to be appropriate, a report that describes—

(i) data collected as part of the program for monitoring and notification as described in subsection (c); and

(ii) actions taken to notify the public when water quality standards are exceeded.

(B) DELEGATION.—A State recipient of a grant under this subsection shall identify each local government to which the State has delegated or intends to delegate responsibility for implementing a monitoring and notification program consistent with the performance criteria published under subsection (a) (including any coastal recreation waters for which the authority to implement a monitoring and notification program would be subject to the delegation).

(4) FEDERAL SHARE.—

(A) IN GENERAL.—The Administrator, through grants awarded under this section, may pay up to 100 percent of the costs of developing and implementing a program for monitoring and notification under this subsection.

(B) NON-FEDERAL SHARE.—The non-Federal share of the costs of developing and implementing a monitoring and notification program may be—

(i) in an amount not to exceed 50 percent, as determined by the Administrator in consultation with State, tribal, and local government representatives; and

(ii) provided in cash or in kind.

(c) CONTENT OF STATE AND LOCAL GOVERNMENT PROGRAMS.—As a condition of receipt of a grant under subsection (b), a State

or local government program for monitoring and notification under this section shall identify—

(1) lists of coastal recreation waters in the State, including coastal recreation waters adjacent to beaches or similar points of access that are used by the public;

(2) in the case of a State program for monitoring and notification, the process by which the State may delegate to local governments responsibility for implementing the monitoring and notification program;

(3) the frequency and location of monitoring and assessment of coastal recreation waters based on—

(A) the periods of recreational use of the waters;

(B) the nature and extent of use during certain periods;

(C) the proximity of the waters to known point sources and nonpoint sources of pollution; and

(D) any effect of storm events on the waters;

(4)(A) the methods to be used for detecting levels of pathogens and pathogen indicators that are harmful to human health; and

(B) the assessment procedures for identifying short-term increases in pathogens and pathogen indicators that are harmful to human health in coastal recreation waters (including increases in relation to storm events);

(5) measures for prompt communication of the occurrence, nature, location, pollutants involved, and extent of any exceeding of, or likelihood of exceeding, applicable water quality standards for pathogens and pathogen indicators to—

(A) the Administrator, in such form as the Administrator determines to be appropriate; and

(B) a designated official of a local government having jurisdiction over land adjoining the coastal recreation waters for which the failure to meet applicable standards is identified;

(6) measures for the posting of signs at beaches or similar points of access, or functionally equivalent communication measures that are sufficient to give notice to the public that the coastal recreation waters are not meeting or are not expected to meet applicable water quality standards for pathogens and pathogen indicators; and

(7) measures that inform the public of the potential risks associated with water contact activities in the coastal recreation waters that do not meet applicable water quality standards.

(d) FEDERAL AGENCY PROGRAMS.—Not later than 3 years after the date of the enactment of this section, each Federal agency that has jurisdiction over coastal recreation waters adjacent to beaches or similar points of access that are used by the public shall develop and implement, through a process that provides for public notice and an opportunity for comment, a monitoring and notification program for the coastal recreation waters that—

(1) protects the public health and safety;

(2) is consistent with the performance criteria published under subsection (a);

(3) includes a completed report on the information specified in subsection (b)(3)(A), to be submitted to the Administrator; and

(4) addresses the matters specified in subsection (c) .

(e) DATABASE.—The Administrator shall establish, maintain, and make available to the public by electronic and other means a national coastal recreation water pollution occurrence database that provides—

(1) the data reported to the Administrator under subsections (b)(3)(A)(i) and (d)(3); and

(2) other information concerning pathogens and pathogen indicators in coastal recreation waters that—

(A) is made available to the Administrator by a State or local government, from a coastal water quality monitoring program of the State or local government; and

(B) the Administrator determines should be included.

(f) TECHNICAL ASSISTANCE FOR MONITORING FLOATABLE MATERIAL.—The Administrator shall provide technical assistance to States and local governments for the development of assessment and monitoring procedures for floatable material to protect public health and safety in coastal recreation waters.

(g) LIST OF WATERS.—

(1) IN GENERAL.—Beginning not later than 18 months after the date of publication of performance criteria under subsection (a), based on information made available to the Administrator, the Administrator shall identify, and maintain a list of, discrete coastal recreation waters adjacent to beaches or similar points of access that are used by the public that—

(A) specifies any waters described in this paragraph that are subject to a monitoring and notification program consistent with the performance criteria established under subsection (a); and

(B) specifies any waters described in this paragraph for which there is no monitoring and notification program (including waters for which fiscal constraints will prevent the State or the Administrator from performing monitoring and notification consistent with the performance criteria established under subsection (a)).

(2) AVAILABILITY.—The Administrator shall make the list described in paragraph (1) available to the public through—

(A) publication in the Federal Register; and

(B) electronic media.

(3) UPDATES.—The Administrator shall update the list described in paragraph (1) periodically as new information becomes available.

(h) EPA IMPLEMENTATION.—In the case of a State that has no program for monitoring and notification that is consistent with the performance criteria published under subsection (a) after the last day of the 3-year period beginning on the date on which the Administrator lists waters in the State under subsection (g)(1)(B), the Administrator shall conduct a monitoring and notification program for the listed waters based on a priority ranking established by the Administrator using funds appropriated for grants under subsection (i)—

(1) to conduct monitoring and notification; and

(2) for related salaries, expenses, and travel.

(i) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated for making grants under subsection (b), including implementation of monitoring and notification programs by the Administrator under subsection (h), $30,000,000 for each of fiscal years 2001 through 2005.

(33 U.S.C. 1346)

TITLE V—GENERAL PROVISIONS

ADMINISTRATION

SEC. 501. (a) The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this Act.

(b) The Administrator, with the consent of the head of any other agency of the United States, may utilize such officers and employees of such agency as may be found necessary to assist in carrying out the purposes of this Act.

(c) Each recipient of financial assistance under this Act shall keep such records as the Administrator shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(d) The Administrator and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access, for the purpose of audit and examination, to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act. For the purpose of carrying out audits and examinations with respect to recipients of Federal assistance under this Act, the Administrator is authorized to enter into noncompetitive procurement contracts with independent State audit organizations, consistent with chapter 75 of title 31, United States Code. Such contracts may only be entered into to the extent and in such amounts as may be provided in advance in appropriation Acts.

(e)(1) It is the purpose of this subsection to authorize a program which will provide official recognition by the United States Government to those industrial organizations and political subdivisions of States which during the preceding year demonstrated an outstanding technological achievement or an innovative process, method, or device in their waste treatment and pollution abatement programs. The Administrator shall, in consultation with the appropriate State water pollution control agencies, establish regulations under which such recognition may be applied for and granted, except that no applicant shall be eligible for an award under this subsection if such applicant is not in total compliance with all applicable water quality requirements under this Act, or otherwise does not have a satisfactory record with respect to environmental quality.

(2) The Administrator shall award a certificate or plaque of suitable design to each industrial organization or political subdivision which qualifies for such recognition under regulations established under this subsection.

(3) The President of the United States, the Governor of the appropriate State, the Speaker of the House of Representatives, and the President pro tempore of the Senate shall be notified of the award by the Administrator and the awarding of such recognition shall be published in the Federal Register.

(f) Upon the request of a State water pollution control agency, personnel of the Environmental Protection Agency may be detailed to such agency for the purpose of carrying out the provisions of this Act.

(33 U.S.C. 1361)

GENERAL DEFINITIONS

SEC. 502. Except as otherwise specifically provided, when used in this Act:

(1) The term "State water pollution control agency" means the State agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

(2) The term "interstate agency" means an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Adminstrator.

(3) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

(4) The term "municipality" means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of this Act.

(5) The term "person" means an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.

(6) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) "sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces" within the meaning of section 312 of this Act; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purpose is approved by authority of the State in which the well is located, and if such State determines

that such injection or disposal will not result in the degradation of ground or surface water resources.

(7) The term "navigable waters" means the waters of the United States, including the territorial seas.

(8) The term "territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.

(9) The term "contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone.

(10) The term "ocean" means any portion of the high seas beyond the contiguous zone.

(11) The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

(12) The term "discharge of a pollutant" and the term "discharge of pollutants" each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.

(13) The term "toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

(14) The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

(15) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (A) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (B) at appropriate frequencies and locations.

(16) The term "discharge" when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.

(17) The term "schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or

operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

(18) The term "industrial user" means those industries identified in the Standard Industrial Classification Manual, Bureau of the Budget, 1967, as amended and supplemented, under the category "Division D—Manufacturing" and such other classes of significant waste producers as, by regulation, the Administrator deems appropriate.

(19) The term "pollution" means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

(20) The term "medical waste" means isolation wastes; infectious agents; human blood and blood products; pathological wastes; sharps; body parts; contaminated bedding; surgical wastes and potentially contaminated laboratory wastes; dialysis wastes; and such additional medical items as the Administrator shall prescribe by regulation.

(21) COASTAL RECREATION WATERS.—

(A) IN GENERAL.—The term "coastal recreation waters" means—

(i) the Great Lakes; and

(ii) marine coastal waters (including coastal estuaries) that are designated under section 303(c) by a State for use for swimming, bathing, surfing, or similar water contact activities.

(B) EXCLUSIONS.—The term "coastal recreation waters" does not include—

(i) inland waters; or

(ii) waters upstream of the mouth of a river or stream having an unimpaired natural connection with the open sea.

(22) FLOATABLE MATERIAL.—

(A) IN GENERAL.—The term "floatable material" means any foreign matter that may float or remain suspended in the water column.

(B) INCLUSIONS.—The term "floatable material" includes—

(i) plastic;

(ii) aluminum cans;

(iii) wood products;

(iv) bottles; and

(v) paper products.

(23) PATHOGEN INDICATOR.—The term "pathogen indicator" means a substance that indicates the potential for human infectious disease.

(33 U.S.C. 1362)

WATER POLLUTION CONTROL ADVISORY BOARD

SEC. 503. (a)(1) There is hereby established in the Environmental Protection Agency a Water Pollution Control Advisory Board, composed of the Administrator or his designee, who shall be Chairman, and nine members appointed by the President, none of whom shall be Federal officers or employees. The appointed mem-

bers, having due regard for the purposes of this Act, shall be selected from among representatives of various State, interstate, and local governmental agencies, of public or private interests contributing to, affected by, or concerned with pollution, and of other public and private agencies, organizations, or groups demonstrating an active interest in the field of pollution prevention and control, as well as other individuals who are expert in this field.

(2)(A) Each member appointed by the President shall hold office for a term of three years, except that (i) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (ii) the terms of office of the members first taking office after June 30, 1956, shall expire as follows: three at the end of one year after such date, three at the end of two years after such date, and three at the end of three years after such date, as designated by the President at the time of appointment, and (iii) the term of any member under the preceding provisions shall be extended until the date on which his successor's appointment is effective. None of the members appointed by the President shall be eligible for reappointment within one year after the end of his preceding term.

(B) The members of the Board who are not officers or employees of the United States, while attending conferences or meetings of the Board or while otherwise serving at the request of the Administrator, shall be entitled to receive compensation at a rate to be fixed by the Administrator, but not exceeding $100 per diem, including traveltime, and while away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law (5 U.S.C. 73b–2) for persons in the Government service employed intermittently.

(b) The Board shall advise, consult with, and make recommendations to the Administrator on matters of policy relating to the activities and functions of the Administrator under this Act.

(c) Such clerical and technical assistance as may be necessary to discharge the duties of the Board shall be provided from the personnel of the Environmental Protection Agency.

(33 U.S.C. 1363)

EMERGENCY POWERS

SEC. 504. (a) Notwithstanding any other provision of this Act, the Administrator upon receipt of evidence that a pollution source or combination of sources is presenting an imminent and substantial endangerment to the health of persons or to the welfare of persons where such endangerment is to the livelihood of such persons, such as inability to market shellfish, may bring suit on behalf of the United States in the appropriate district court to immediately restrain any person causing or contributing to the alleged pollution to stop the discharge of pollutants causing or contributing to such pollution or to take such other action as may be necessary.

[Subsection (b) repealed by §304(a) of P.L. 96–510, Dec. 11, 1980, 94 Stat. 2809]

(33 U.S.C. 1364)

CITIZEN SUITS

SEC. 505. (a) Except as provided in subsection (b) of this section and section 309(g)(6), any citizen may commence a civil action on his own behalf—

(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of (A) an effluent standard or limitation under this Act or (B) an order issued by the Administrator or a State with respect to such a standard or limitation, or

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an effluent standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties under section 309(d) of this Act.

(b) No action may be commenced—

(1) under subsection (a)(1) of this section—

(A) prior to sixty days after the plaintiff has given notice of the alleged violation (i) to the Administrator, (ii) to the State in which the alleged violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States, or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any citizen may intervene as a matter of right.

(2) under subsection (a)(2) of this section prior to sixty days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of sections 306 and 307(a) of this Act. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

(c)(1) Any action respecting a violation by a discharge source of an effluent standard or limitation or an order respecting such standard or limitation may be brought under this section only in the judicial district in which such source is located.

(2) In such action under this section, the Administrator, if not a party, may intervene as a matter of right.

(3) PROTECTION OF INTERESTS OF UNITED STATES.—Whenever any action is brought under this section in a court of the United States, the plaintiff shall serve a copy of the complaint on the Attorney General and the Administrator. No consent judgment shall be entered in an action in which the United States is not a party prior to 45 days following the receipt of

a copy of the proposed consent judgment by the Attorney General and the Administrator.

(d) The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any prevailing or substantially prevailing party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

(f) For purposes of this section, the term "effluent standard or limitation under this Act" means (1) effective July 1, 1973, an unlawful act under subsection (a) of section 301 of this Act; (2) an effluent limitation or other limitation under section 301 or 302 of this Act; (3) standard or performance under section 306 of this Act; (4) prohibition, effluent standard or pretreatment standards under section 307 of this Act; (5) certification under section 401 of this Act; (6) a permit or condition thereof issued under section 402 of this Act, which is in effect under this Act (including a requirement applicable by reason of section 313 of this Act); or (7) a regulation under section 405(d) of this Act,.[1]

(g) For the purposes of this section the term "citizen" means a person or persons having an interest which is or may be adversely affected.

(h) A Governor of a State may commence a civil action under subsection (a), without regard to the limitations of subsection (b) of this section, against the Administrator where there is alleged a failure of the Administrator to enforce an effluent standard or limitation under this Act the violation of which is occurring in another State and is causing an adverse effect on the public health or welfare in his State, or is causing a violation of any water quality requirement in his State.

(33 U.S.C. 1365)

APPEARANCE

SEC. 506. The Administrator shall request the Attorney General to appear and represent the United States in any civil or criminal action instituted under this Act to which the Administrator is a party. Unless the Attorney General notifies the Administrator within a reasonable time, that he will appear in a civil action, attorneys who are officers or employees of the Environmental Protection Agency shall appear and represent the United States in such action.

(33 U.S.C. 1366)

[1] So in law. See P.L. 100–4, sec. 406(d)(2), 101 Stat. 73.

EMPLOYEE PROTECTION

SEC. 507. (a) No person shall fire, or in any other way discriminate against, or cause to be fired or discriminated against, any employee or any authorized representative or employees by reason of the fact that such employee or representative has filed, instituted, or caused to be filed or instituted any proceeding under this Act, or has testified or is about to testify in any proceeding resulting from the administration or enforcement of the provisions of this Act.

(b) Any employee or a representative of employees who believes that he has been fired or otherwise discriminated against by any person in violation of subsection (a) of this section may, within thirty days after such alleged violation occurs, apply to the Secretary of Labor for a review of such firing or alleged discrimination. A copy of the application shall be sent to such person who shall be the respondent. Upon receipt of such application, the Secretary of Labor shall cause such investigation to be made as he deems appropriate. Such investigation shall provide an opportunity for a public hearing at the request of any party to such review to enable the parties to present information relating to such alleged violation. The parties shall be given written notice of the time and place of the hearing at least five days prior to the hearing. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Secretary of Labor shall make findings of fact. If he finds that such violation did occur, he shall issue a decision, incorporating an order therein and his findings, requiring the party committing such violation to take such affirmative action to abate the violation as the Secretary of Labor deems appropriate, including, but not limited to, the rehiring or reinstatement of the employee or representative of employees to his former position with compensation. If he finds that there was no such violation, he shall issue an order denying the application. Such order issued by the Secretary of Labor under this subparagraph shall be subject to judicial review in the same manner as orders and decisions of the Administrator are subject to judicial review under this Act.

(c) Whenever an order is issued under this section to abate such violation, at the request of the applicant, a sum equal to the aggregate amount of all costs and expenses (including the attorney's fees), as determined by the Secretary of Labor, to have been reasonably incurred by the applicant for, or in connection with, the institution and prosecution of such proceedings, shall be assessed against the person committing such violation.

(d) This section shall have no application to any employee who, acting without direction from his employer (or his agent) deliberately violates any prohibition of effluent limitation or other limitation under section 301 or 302 of this Act, standards of performance under section 306 of this Act, effluent standard, prohibition or pretreatment standard under section 307 of this Act, or any other prohibition or limitation established under this Act.

(e) The Administrator shall conduct continuing evaluations of potential loss or shifts of employment which may result from the issuance of any effluent limitation or order under this Act, includ-

ing, where appropriate, investigating threatened plant closures or reductions in employment allegedly resulting from such limitation or order. Any employee who is discharged or laid off, threatened with discharge or lay-off, or otherwise discriminated against by any person because of the alleged results of any effluent limitation or order issued under this Act, or any representative of such employee, may request the Administrator to conduct a full investigation of the matter. The Administrator shall thereupon investigate the matter and, at the request of any party, shall hold public hearings on not less than five days notice, and shall at such hearings require the parties, including the employer involved, to present information relating to the actual or potential effect of such limitation or order on employment and on any alleged discharge, lay-off, or other discrimination and the detailed reasons or justification therefor. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Administrator shall make findings of fact as to the effect of such effluent limitation or order on employment and on the alleged discharge, lay-off, or discrimination and shall make such recommendations as he deems appropriate. Such report, findings, and recommendations shall be available to the public. Nothing in this subsection shall be construed to require or authorize the Administrator to modify or withdraw any effluent limitation or order issued under this Act.

(33 U.S.C. 1367)

FEDERAL PROCUREMENT

SEC. 508. (a) No Federal agency may enter into any contract with any person, who has been convicted of any offense under section 309(c) of this Act, for the procurement of goods, materials, and services if such contract is to be performed at any facility at which the violation which gave rise to such conviction occurred, and if such facility is owned, leased, or supervised by such person. The prohibition in the preceding sentence shall continue until the Administrator certifies that the condition giving rise to such conviction has been corrected.

(b) The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a) of this section.

(c) In order to implement the purposes and policy of this Act to protect and enhance the quality of the Nation's water, the President shall, not more than one hundred and eighty days after enactment of this Act, cause to be issued an order (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this Act in such contracting or assistance activities, and (2) setting forth procedures, sanctions, penalties, and such other provisions, as the President determines necessary to carry out such requirement.

(d) The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of

the United States and he shall notify the Congress of such exemption.

(e) The President shall annually report to the Congress on measures taken in compliance with the purpose and intent of this section, including, but not limited to, the progress and problems associated with such compliance.

(f)(1) No certification by a contractor, and no contract clause, may be required in the case of a contract for the acquisition of commercial items in order to implement a prohibition or requirement of this section or a prohibition or requirement issued in the implementation of this section.

(2) In paragraph (1), the term "commercial item" has the meaning given such term in section 4(12) of the Office of Federal Procurement Policy Act (41 U.S.C. 403(12)).

(33 U.S.C. 1368)

ADMINISTRATIVE PROCEDURE AND JUDICIAL REVIEW

SEC. 509. (a)(1) For purposes of obtaining information under section 305 of this Act, or carrying out section 507(e) of this Act, the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for effluent data, upon a showing satisfactory to the Administrator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 304 (b) and (c) of this Act. Any papers, books, documents, or other information or part thereof, obtained by reason of such a subpena shall be subject to the same requirements as are provided in paragraph (1) of this subsection.

(b)(1) Review of the Administrator's action (A) in promulgating any standard of performance under section 306, (B) in making any

determination pursuant to section 306(b)(1)(C), (C) in promulgating any effluent standard, prohibition, or pretreatment standard under section 307, (D) in making any determination as to a State permit program submitted under section 402(b), (E) in approving or promulgating any effluent limitation or other limitation under sections 301, 302, 306, or 405, (F) in issuing or denying any permit under section 402, and (G) in promulgating any individual control strategy under section 304(l), may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts business which is directly affected by such action upon application by such person. Any such application shall be made within 120 days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such 120th day.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) of this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement.

(3) AWARD OF FEES.—In any judicial proceeding under this subsection, the court may award costs of litigation (including reasonable attorney and expert witness fees) to any prevailing or substantially prevailing party whenever it determines that such award is appropriate.

(c) In any judicial proceeding brought under subsection (b) of this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination with the return of such additional evidence.

(33 U.S.C. 1369)

STATE AUTHORITY

SEC. 510. Except as expressly provided in this Act, nothing in this Act shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirement respecting control or abatement of pollution; except that if an effluent limitation, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance is in effect under this Act, such State or political subdivision or interstate agency may not adopt or enforce any effluent limitation, or other limitation, effluent standard, prohibition,

pretreatment standard, or standard of performance which is less stringent than the effluent limitation, or other limitation, effluent standard prohibition, pretreatment standard, or standard of performance under this Act; or (2) be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States.

(33 U.S.C. 1370)

OTHER AFFECTED AUTHORITY

SEC. 511. (a) This Act shall not be construed as (1) limiting the authority or functions of any officer or agency of the United States under any other law or regulation not inconsistent with this Act; (2) affecting or impairing the authority of the Secretary of the Army (A) to maintain navigation or (B) under the Act of March 3, 1899 (30 Stat. 1112); except that any permit issued under section 404 of this Act shall be conclusive as to the effect on water quality of any discharge resulting from any activity subject to section 10 of the Act of March 3, 1899, or (3) affecting or impairing the provisions of any treaty of the United States.

(b) Discharges of pollutants into the navigable waters subject to the Rivers and Harbors Act of 1910 (36 Stat. 593; 33 U.S.C. 421) and the Supervisory Harbors, Act of 1888 (25 Stat. 209; 33 U.S.C. 441–451b) shall be regulated pursuant to this Act, and not subject to such Act of 1910 and the Act of 1888 except as to effect on navigation and anchorage.

(c)(1) Except for the provision of Federal financial assistance for the purpose of assisting the construction of publicly owned treatment works as authorized by section 201 of this Act, and the issuance of a permit under section 402 of this Act for the discharge of any pollutant by a new source as defined in section 306 of this Act, no action of the Administrator taken pursuant to this Act shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 (83 Stat. 852); and

(2) Nothing in the National Environmental Policy Act of 1969 (83 Stat. 852) shall be deemed to—

(A) authorize any Federal agency authorized to license or permit the conduct of any activity which may result in the discharge of a pollutant into the navigable waters to review any effluent limitation or other requirement established pursuant to this Act or the adequacy of any certification under section 401 of ths Act; or

(B) authorize any such agency to impose, as a condition precedent to the issuance of any license or permit, any effluent limitation other than any such limitation established pursuant to this Act.

(d) Notwithstanding this Act or any other provisions of law, the Administrator (1) shall not require any State to consider in the development of the ranking in order of priority of needs for the construction of treatment works (as defined in title II of this Act), any water pollution control agreement which may have been entered into between the United States and any other nation, and (2) shall

not consider any such agreement in the approval of any such priority ranking.

(33 U.S.C. 1371)

SEPARABILITY

SEC. 512. If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act shall not be affected thereby.

(33 U.S.C. 1251 note)

LABOR STANDARDS

SEC. 513. The Administrator shall take such action as may be necessary to insure that all laborers and mechanics employed by contractors or subcontractors on treatment works for which grants are made under this Act shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the immediate locality, as determied by the Secretry of Labor, in accordance with the Act of March 3, 1931, as amended, known as the Davis-Bacon Act (46 Stat. 1494; 40 U.S.C., sec. 276a through 276a–5). The Secretary of Labor shall have, with respect to the labor standards specified in this subsection, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176) and section 2 of the Act of June 13, 1934, as amended (48 Stat. 948; 40 U.S.C. 276c).

(33 U.S.C. 1372)

PUBLIC HEALTH AGENCY COORDINATION

SEC. 514. The permitting agency under section 402 shall assist the applicant for a permit under such section in coordinating the requirements of this Act with those of the appropriate public health agencies.

(33 U.S.C. 1373)

EFFLUENT STANDARDS AND WATER QUALITY INFORMATION ADVISORY COMMITTEE

SEC. 515. (a)(1) There is established on Effluent Standards and Water Quality Information Advisory Committee, which shall be composed of a Chairman and eight members who shall be appointed by the Administrator within sixty days after the date of enactment of this Act.

(2) All members of the Committee shall be selected from the scientific community, qualified by education, training, and experience to provide assess, and evaluate scientific and technical information on effluent standards and limitations.

(3) Members of the Committee shall serve for a term of four years, and may be reappointed.

(b)(1) No later than one hundred and eighty days prior to the date on which the Administrator is required to publish any proposed regulations required by section 304(b) of this Act, any proposed standard of performance for new sources required by section 306 of this Act, or any proposed toxic effluent standard required by

section 307 of this Act, he shall transmit to the Committee a notice of intent to propose such regulations. The Chairman of the Committee within ten days after receipt of such notice may publish a notice of a public hearing by the Committee, to be held within thirty days.

(2) No later than one hundred and twenty days after receipt of such notice, the Committee shall transmit to the Administrator such scientific and technical information as is in its possession, including that presented at any public hearing, related to the subject matter contained in such notice.

(3) Information so transmitted to the Administrator shall constitute a part of the administrative record and comments on any proposed regulations or standards as information to be considered with other comments and information in making any final determinations.

(4) In preparing information for transmittal, the Committee shall avail itself of the technical and scientific services of any Federal agency, including the United States Geological Survey and any national environmental laboratories which may be established.

(c)(1) The Committee shall appoint and prescribe the duties of a Secretary, and such legal counsel as it deems necessary. The Committee shall appoint such other employees as it deems necessary to exercise and fulfill its powers and responsibilities. The compensation of all employees appointed by the Committee shall be fixed in accordance with chapter 51 and subchapter III of chapter 53 of title V of the United States Code.

(2) Members of the Committee shall be entitled to receive compensation at a rate to be fixed by the President but not in excess of the maximum rate of pay grade for GS–18, as provided in the General Schedule under section 5332 of title V of the United States Code.

(d) Five members of the Committee shall constitute a quorum, and official actions of the Committee shall be taken only on the affirmative vote of at least five members. A special panel composed of one or more members upon order of the Committee shall conduct any hearing authorized by this section and submit the transcript of such hearing to the entire Committee for its action thereon.

(e) The Committee is authorized to make such rules as are necessary for the orderly transaction of its business.

(33 U.S.C. 1374)

REPORTS TO CONGRESS

SEC. 516. The Administrator, in cooperation with the States, including water pollution control agencies and other water pollution control planning agencies, shall make (1) a detailed estimate of the cost of carrying out the provisions of this Act; (2) a detailed estimate, biennially revised, of the cost of construction of all needed publicly owned treatment works in all of the States and of the cost of construction of all needed publicly owned treatment works in each of the States; (3) a comprehensive study of the economic impact on affected units of government of the cost of installation of treatment facilities; and (4) a comprehensive analysis of the national requirements for and the cost of treating municipal, indus-

trial, and other effluent to attain the water quality objectives as established by this Act or applicable State law. The Administrator shall submit such detailed estimate and such comprehensive study of such cost to the Congress no later than February 10 of each odd-numbered year. Whenever the Administrator, pursuant to this subsection, requests and receives an estimate of cost from a State, he shall furnish copies of such estimate together with such detailed estimate to Congress.

(33 U.S.C. 1375)

GENERAL AUTHORIZATION

SEC. 517. There are authorized to be appropriated to carry out this Act, other than sections 104, 105, 106(a), 107, 108, 112, 113, 114, 115, 206, 207, 208 (f) and (h), 209, 304, 311 (c), (d), (i), (l), and (k), 314, 315, and 317, $250,000,000 for the fiscal year ending June 30, 1973, $300,000,000 for the fiscal year ending June 30, 1974, $350,000,000 for the fiscal year ending June 30, 1975, $100,000,000 for the fiscal year ending September 30, 1977, $150,000,000 for the fiscal year ending September 30, 1978, $150,000,000 for the fiscal year ending September 30, 1979, $150,000,000 for the fiscal year ending September 30, 1980, $150,000,000 for the fiscal year ending September 30, 1981, $161,000,000 for the fiscal year ending September 30, 1982, such sums as may be necessary for fiscal years 1983 through 1985, and $135,000,000 per fiscal year for each of the fiscal years 1986 through 1990.

(33 U.S.C. 1376)

SEC. 518. INDIAN TRIBES.

(a) POLICY.—Nothing in this section shall be construed to affect the application of section 101(g) of this Act, and all of the provisions of this section shall be carried out in accordance with the provisions of such section 101(g). Indian tribes shall be treated as States for purposes of such section 101(g).

(b) ASSESSMENT OF SEWAGE TREATMENT NEEDS; REPORT.—The Administrator, in cooperation with the Director of the Indian Health Service, shall assess the need for sewage treatment works to serve Indian tribes, the degree to which such needs will be met through funds allotted to States under section 205 of this Act and priority lists under section 216 of this Act, and any obstacles which prevent such needs from being met. Not later than one year after the date of the enactment of this section, the Administrator shall submit a report to Congress on the assessment under this subsection, along with recommendations specifying (1) how the Administrator intends to provide assistance to Indian tribes to develop waste treatment management plans and to construct treatment works under this Act, and (2) methods by which the participation in and administration of programs under this Act by Indian tribes can be maximized.

(c) RESERVATION OF FUNDS.—The Administrator shall reserve each fiscal year beginning after September 30, 1986, before allotments to the States under section 205(e), one-half of one percent of the sums appropriated under section 207. Sums reserved under this subsection shall be available only for grants for the develoment of waste treatment management plans and for the construction of

sewage treatment works to serve Indian tribes, as defined in subsection (h) and former Indian reservations in Oklahoma (as determined by the Secretary of the Interior) and Alaska Native Villages as defined in Public Law 92–203.

(d) COOPERATIVE AGREEMENTS.—In order to ensure the consistent implementation of the requirements of this Act, an Indian tribe and the State or States in which the lands of such tribe are located may enter into a cooperative agreement, subject to the review and approval of the Administrator, to jointly plan and administer the requirements of this Act.

(e) TREATMENT AS STATES.—The Administrator is authorized to treat an Indian tribe as a State for purposes of title II and sections 104, 106, 303, 305, 308, 309, 314, 319, 401, 402, 404, and 406 of this Act to the degree necessary to carry out the objectives of this section, but only if—

(1) the Indian tribe has a governing body carrying out substantial governmental duties and powers;

(2) the functions to be exercised by the Indian tribe pertain to the management and protection of water resources which are held by an Indian tribe, held by the United States in trust for Indians, held by a member of an Indian tribe if such property interest is subject to a trust restriction on alienation, or otherwise within the borders of an Indian reservation; and

(3) the Indian tribe is reasonably expected to be capable, in the Administrator's judgment, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of this Act and of all applicable regulations.

Such treatment as a State may include the direct provision of funds reserved under subsection (c) to the governing bodies of Indian tribes, and the determination of priorities by Indian tribes, where not determined by the Administrator in cooperation with the Director of the Indian Health Service. The Administrator, in cooperation with the Director of the Indian Health Service, is authorized to make grants under title II of this Act in an amount not to exceed 100 percent of the cost of a project. Not later than 18 months after the date of the enactment of this section, the Administrator shall, in consultation with Indian tribes, promulgate final regulations which specify how Indian tribes shall be treated as States for purposes of this Act. The Administrator shall, in promulgating such regulations, consult affected States sharing common water bodies and provide a mechanism for the resolution of any unreasonable consequences that may arise as a result of differing water quality standards that may be set by States and Indian tribes located on common bodies of water. Such mechanism shall provide for explicit consideration of relevant factors including, but not limited to, the effects of differing water quality permit requirements on upstream and downstream dischargers, economic impacts, and present and historical uses and quality of the waters subject to such standards. Such mechanism should provide for the avoidance of such unreasonable consequences in a manner consistent with the objective of this Act.

(f) GRANTS FOR NONPOINT SOURCE PROGRAMS.—The Administrator shall make grants to an Indian tribe under section 319 of this Act as though such tribe was a State. Not more than one-third

of one percent of the amount appropriated for any fiscal year under section 319 may be used to make grants under this subsection. In addition to the requirements of section 319, an Indian tribe shall be required to meet the requirements of paragraphs (1), (2), and (3) of subsection (d)[1] of this section in order to receive such a grant.

(g) ALASKA NATIVE ORGANIZATIONS.—No provision of this Act shall be construed to—

(1) grant, enlarge, or diminish, or in any way affect the scope of the governmental authority, if any, of any Alaska Native organization, including any federally-recognized tribe, traditional Alaska Native council, or Native council organized pursuant to the Act of June 18, 1934 (48 Stat. 987), over lands or persons in Alaska;

(2) create or validate any assertion by such organization or any form of governmental authority over lands or persons in Alaska; or

(3) in any way affect any assertion that Indian country, as defined in section 1151 of title 18, United States Code, exists or does not exist in Alaska.

(h) DEFINITIONS.—For purposes of this section, the term—

(1) "Federal Indian reservation" means all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; and

(2) "Indian tribe" means any Indian tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.

(33 U.S.C. 1377)

SHORT TITLE

SEC. 519. This Act may be cited as the "Federal Water Pollution Control Act" (commonly referred to as the Clean Water Act).

(33 U.S.C. 1251 note)

TITLE VI—STATE WATER POLLUTION CONTROL REVOLVING FUNDS

SEC. 601. GRANTS TO STATES FOR ESTABLISHMENT OF REVOLVING FUNDS.

(a) GENERAL AUTHORITY.—Subject to the provisions of this title, the Administrator shall make capitalization grants to each State for the purpose of establishing a water pollution control revolving fund for providing assistance (1) for construction of treatment works (as defined in section 212 of this Act) which are publicly owned, (2) for implementing a management program under section 319, and (3) for developing and implementing a conservation and management plan under section 320.

(b) SCHEDULE OF GRANT PAYMENTS.—The Administrator and each State shall jointly establish a schedule of payments under which the Administrator will pay to the State the amount of each

[1] Probably should be subsection (e).

grant to be made to the State under this title. Such schedule shall be based on the State's intended use plan under section 606(c) of this Act, except that—

(1) such payments shall be made in quarterly installments, and

(2) such payments shall be made as expeditiously as possible, but in no event later than the earlier of—

(A) 8 quarters after the date such funds were obligated by the State, or

(B) 12 quarters after the date such funds were allotted to the State.

(33 U.S.C. 1381)

SEC. 602. CAPITALIZATION GRANT AGREEMENTS.

(a) GENERAL RULE.—To receive a capitalization grant with funds made available under this title and section 205(m) of this Act, a State shall enter into an agreement with the Administrator which shall include but not be limited to the specifications set forth in subsection (b) of this section.

(b) SPECIFIC REQUIREMENTS.—The Administrator shall enter into an agreement under this section with a State only after the State has established to the satisfaction of the Administrator that—

(1) the State will accept grant payments with funds to be made available under this title and section 205(m) of this Act in accordance with a payment schedule established jointly by the Administrator under section 601(b) of this Act and will deposit all such payments in the water pollution control revolving fund established by the State in accordance with this title;

(2) the State will deposit in the fund from State moneys an amount equal to at least 20 percent of the total amount of all capitalization grants which will be made to the State with funds to be made available under this title and section 205(m) of this Act on or before the date on which each quarterly grant payment will be made to the State under this title;

(3) the State will enter into binding commitments to provide assistance in accordance with the requirements of this title in an amount equal to 120 percent of the amount of each such grant payment within 1 year after the receipt of such grant payment;

(4) all funds in the fund will be expended in an expeditious and timely manner;

(5) all funds in the fund as a result of capitalization grants under this title and section 205(m) of this Act will first be used to assure maintenance of progress, as determined by the Governor of the State, toward compliance with enforceable deadlines, goals, and requirements of this Act, including the municipal compliance deadline;

(6) treatment works eligible under section 603(c)(1) of this Act which will be constructed in whole or in part before fiscal year 1995 with funds directly made available by capitalization grants under this title and section 205(m) of this Act will meet the requirements of, or otherwise be treated (as determined by the Governor of the State) under sections 201(b), 201(g)(1),

201(g)(2), 201(g)(3), 201(g)(5), 201(g)(6), 201(n)(1), 201(o), 204(a)(1), 204(a)(2), 204(b)(1), 204(d)(2), 211, 218, 511(c)(1), and 513 of this Act in the same manner as treatment works constructed with assistance under title II of this Act;

(7) in addition to complying with the requirements of this title, the State will commit or expend each quarterly grant payment which it will receive under this title in accordance with laws and procedures applicable to the commitment or expenditure of revenues of the State;

(8) in carrying out the requirements of section 606 of this Act, the State will use accounting, audit, and fiscal procedures conforming to generally accepted government accounting standards;

(9) the State will require as a condition of making a loan or providing other assistance, as described in section 603(d) of this Act, from the fund that the recipient of such assistance will maintain project accounts in accordance with generally accepted government accounting standards; and

(10) the State will make annual reports to the Administrator on the actual use of funds in accordance with section 606(d) of this Act.

(33 U.S.C. 1382)

SEC. 603. WATER POLLUTION CONTROL REVOLVING LOAN FUNDS. [1]

(a) REQUIREMENTS FOR OBLIGATION OF GRANT FUNDS.—Before a State may receive a capitalization grant with funds made available under this title and section 205(m) of this Act, the State shall first establish a water pollution control revolving fund which complies with the requirements of this section.

(b) ADMINISTRATOR.—Each State water pollution control revolving fund shall be administered by an instrumentality of the State with such powers and limitations as may be required to operate such fund in accordance with the requirements and objectives of this Act.

(c) PROJECTS ELIGIBLE FOR ASSISTANCE.—The amounts of funds available to each State water pollution control revolving fund shall be used only for providing financial assistance (1) to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works (as defined in section 212 of this Act), (2) for the implementation of a management program established under section 319 of this Act, and (3) for development and implementation of a conservation and management plan under section 320 of this Act. The fund shall be established, maintained, and credited with repayments, and the fund balance shall be available in perpetuity for providing such financial assistance. [2]

---

[1] See section 104B of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1414G) for additional amounts that are to be deposited into a State's fund and treatment of such deposits.

[2] Section 1006 of the Ocean Dumping Ban Act of 1988 (P.L. 100–688) is as follows:

SEC. 1066. USE OF STATE WATER POLLUTION CONTROL REVOLVING FUND GRANTS FOR DEVELOPING ALTERNATIVE SYSTEMS.

(a) GENERAL REQUIREMENT.—Notwithstanding the provisions of title VI of the Federal Water Pollution Control Act, each of the States of New York and New Jersey shall use 10 percent of the amount of a grant payment made to such State under such title for each of the fiscal years 1990 and 1991 and 10 percent of the State's contribution associated with such grant payment in the 6-month period beginning on the date of receipt of such grant payment for making loans

(d) TYPES OF ASSISTANCE.—Except as otherwise limited by State law, a water pollution control revolving fund of a State under this section may be used only—

(1) to make loans, on the condition that—

(A) such loans are made at or below market interest rates, including interest free loans, at terms not to exceed 20 years;

(B) annual principal and interest payments will commence not later than 1 year after completion of any project and all loans will be fully amortized not later than 20 years after project completion;

(C) the recipient of a loan will establish a dedicated source of revenue for repayment of loans; and

(D) the fund will be credited with all payments of principal and interest on all loans;

(2) to buy or refinance the debt obligation of municipalities and intermunicipal and interstate agencies within the State at or below market rates, where such debt obligations were incurred after March 7, 1985;

(3) to guarantee, or purchase insurance for, local obligations where such action would improve credit market access or reduce interest rates;

(4) as a source of revenue or security for the payment of principal and interest on revenue or general obligation bonds issued by the State if the proceeds of the sale of such bonds will be deposited in the fund;

(5) to provide loan guarantees for similar revolving funds established by municipalities or intermunicipal agencies;

(6) to earn interest on fund accounts; and

(7) for the reasonable costs of administering the fund and conducting activities under this title, except that such amounts shall not exceed 4 percent of all grant awards to such fund under this title.

(e) LIMITATION TO PREVENT DOUBLE BENEFITS.—If a State makes, from its water pollution revolving fund, a loan which will finance the cost of facility planning and the preparation of plans, specifications, and estimates for construction of publicly owned treatment works, the State shall ensure that if the recipient of such loan receives a grant under section 201(g) of this Act for construction of such treatment works and an allowance under section 201(l)(1) of this Act for non-federal funds expended for such planning and preparation, such recipient will promptly repay such loan to the extent of such allowance.

---

and providing other assistance as described in section 603(d) of the Federal Water Pollution Control Act to any governmental entity in such State which has entered into a compliance agreement or enforcement agreement under section 104B of the Marine Protection, Research, and Sanctuaries Act of 1972 for identifying, developing, and implementing pursuant to such section alternative systems for management of sewage sludge.

(b) LIMITATION.—If, after the last day of the 6-month period beginning on the date of receipt of a grant payment by the State of New York or New Jersey under title VI of the Federal Water Pollution Control Act for each of fiscal years 1990 and 1991, 10 percent of the amount of such grant payment and the State's contribution associated with such grant payment has not been used for providing assistance described in subsection (a) as a result of insufficient applications for such assistance from persons eligible for such assistance, the 10 percent limitations set forth in subsection (a) shall not be applicable with respect to such grant payment and associated State contribution.

(f) CONSISTENCY WITH PLANNING REQUIREMENTS.—A State may provide financial assistance from its water pollution control revolving fund only with respect to a project which is consistent with plans, if any, developed under sections 205(j), 208, 303(e), 319, and 320 of this Act.

(g) PRIORITY LIST REQUIREMENT.—The State may provide financial assistance from its water pollution control revolving fund only with respect to a project for construction of a treatment works described in subsection (c)(1) if such project is on the State's priority list under section 216 of this Act. Such assistance may be provided regardless of the rank of such project on such list.

(h) ELIGIBILITY OF NON-FEDERAL SHARE OF CONSTRUCTION GRANT PROJECTS.—A State water pollution control revolving fund may provide assistance (other than under subsection (d)(1) of this section) to a municipality or intermunicipal or interstate agency with respect to the non-Federal share of the costs of a treatment works project for which such municipality or agency is receiving assistance from the Administrator under any other authority only if such assistance is necessary to allow such project to proceed.

(33 U.S.C. 1383)

SEC. 604. ALLOTMENT OF FUNDS.

(a) FORMULA.—Sums authorized to be appropriated to carry out this section for each of fiscal years 1989 and 1990 shall be allotted by the Administrator in accordance with section 205(c) of this Act.

(b) RESERVATION OF FUNDS FOR PLANNING.—Each State shall reserve each fiscal year 1 percent of the sums allotted to such State under this section for such fiscal year, or $100,000, whichever amount is greater, to carry out planning under sections 205(j) and 303(e) of this Act.

(c) ALLOTMENT PERIOD.—

(1) PERIOD OF AVAILABILITY FOR GRANT AWARD.—Sums allotted to a State under this section for a fiscal year shall be available for obligation by the State during the fiscal year for which sums are authorized and during the following fiscal year.

(2) REALLOTMENT OF UNOBLIGATED FUNDS.—The amount of any allotment not obligated by the State by the last day of the 2-year period of availability established by paragraph (1) shall be immediately reallotted by the Administrator on the basis of the same ratio as is applicable to sums allotted under title II of this Act for the second fiscal year of such 2-year period. None of the funds reallotted by the Administrator shall be reallotted to any State which has not obligated all sums allotted to such State in the first fiscal year of such 2-year period.

(33 U.S.C. 1384)

SEC. 605. CORRECTIVE ACTION.

(a) NOTIFICATION OF NONCOMPLIANCE.—If the Administrator determines that a State has not complied with its agreement with the Administrator under section 602 of this Act or any other requirement of this title, the Administrator shall notify the State of such noncompliance and the necessary corrective action.

(b) WITHHOLDING OF PAYMENTS.—If a State does not take corrective action within 60 days after the date a State receives notification of such action under subsection (a), the Administrator shall withhold additional payments to the State until the Administrator is satisfied that the State has taken the necessary corrective action.

(c) REALLOTMENT OF WITHHELD PAYMENTS.—If the Administrator is not satisfied that adequate corrective actions have been taken by the State within 12 months after the State is notified of such actions under subsection (a), the payments withheld from the State by the Administrator under subsection (b) shall be made available for reallotment in accordance with the most recent formula for allotment of funds under this title.

(33 U.S.C. 1385)

SEC. 606. AUDITS, REPORTS, AND FISCAL CONTROLS; INTENDED USE PLAN.

(a) FISCAL CONTROL AND AUDITING PROCEDURES.—Each State electing to establish a water pollution control revolving fund under this title shall establish fiscal controls and accounting procedures sufficient to assure proper accounting during appropriate accounting periods for—

(1) payments received by the fund;

(2) disbursements made by the fund; and

(3) fund balances at the beginning and end of the accounting period.

(b) ANNUAL FEDERAL AUDITS.—The Administrator shall, at least on an annual basis, conduct or require each State to have independently conducted reviews and audits as may be deemed necessary or appropriate by the Administrator to carry out the objectives of this section. Audits of the use of funds deposited in the water pollution revolving fund established by such State shall be conducted in accordance with the auditing procedures of the General Accounting Office, including chapter 75 of title 31, United States Code.

(c) INTENDED USE PLAN.—After providing for public comment and review, each State shall annually prepare a plan identifying the intended uses of the amounts available to its water pollution control revolving fund. Such intended use plan shall include, but not be limited to—

(1) a list of those projects for construction of publicly owned treatment works on the State's priority list developed pursuant to section 216 of this Act and a list of activities eligible for assistance under sections 319 and 320 of this Act;

(2) a description of the short- and long-term goals and objectives of its water pollution control revolving fund;

(3) information on the activities to be supported, including a description of project categories, discharge requirements under titles III and IV of this Act, terms of financial assistance, and communities served;

(4) assurances and specific proposals for meeting the requirements of paragraphs (3), (4), (5), and (6) of section 602(b) of this Act; and

(5) the criteria and method established for the distribution of funds.

(d) ANNUAL REPORT.—Beginning the first fiscal year after the receipt of payments under this title, the State shall provide an annual report to the Administrator describing how the State has met the goals and objectives for the previous fiscal year as identified in the plan prepared for the previous fiscal year pursuant to subsection (c), including identification of loan recipients, loan amounts, and loan terms and similar details on other forms of financial assistance provided from the water pollution control revolving fund.

(e) ANNUAL FEDERAL OVERSIGHT REVIEW.—The Administrator shall conduct an annual oversight review of each State plan prepared under subsection (c), each State report prepared under subsection (d), and other such materials as are considered necessary and appropriate in carrying out the purposes of this title. After reasonable notice by the Administrator to the State or the recipient of a loan from a water pollution control revolving fund, the State or loan recipient shall make available to the Administrator such records as the Administrator reasonably requires to review and determine compliance with this title.

(f) APPLICABILITY OF TITLE II PROVISIONS.—Except to the extent provided in this title, the provisions of title II shall not apply to grants under this title.

(33 U.S.C. 1386)

SEC. 607. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out the purposes of this title the following sums:

(1) $1,200,000,000 per fiscal year for each of fiscal year 1989 and 1990;

(2) $2,400,000,000 for fiscal year 1991;

(3) $1,800,000,000 for fiscal year 1992;

(4) $1,200,000,000 for fiscal year 1993; and

(5) $600,000,000 for fiscal year 1994.

(33 U.S.C. 1387)

(iv) The non-Federal entity may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby offeror's qualifications are evaluated and the most qualified offeror is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms that are a potential source to perform the proposed effort.

(c) *Noncompetitive procurement.* There are specific circumstances in which noncompetitive procurement can be used. Noncompetitive procurement can only be awarded if one or more of the following circumstances apply:

(1) The acquisition of property or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (see paragraph (a)(1) of this section);

(2) The item is available only from a single source;

(3) The public exigency or emergency for the requirement will not permit a delay resulting from publicizing a competitive solicitation;

(4) The Federal awarding agency or pass-through entity expressly authorizes a noncompetitive procurement in response to a written request from the non-Federal entity; or

(5) After solicitation of a number of sources, competition is determined inadequate.

§ 200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms.

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;

(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and

(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (b)(1) through (5) of this section.

§ 200.322 Domestic preferences for procurements.

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

(1) ''Produced in the United States'' means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) ''Manufactured products'' means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

§ 200.323 Procurement of recovered materials.

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the

Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

§ 200.324 Contract cost and price.

(a) The non-Federal entity must perform a cost or price analysis in connection with every procurement action in excess of the Simplified Acquisition Threshold including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, the non-Federal entity must make independent estimates before receiving bids or proposals.

(b) The non-Federal entity must negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. To establish a fair and reasonable profit, consideration must be given to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.

(c) Costs or prices based on estimated costs for contracts under the Federal award are allowable only to the extent that costs incurred or cost estimates included in negotiated prices would be allowable for the non-Federal entity under subpart E of this part. The non-Federal entity may reference its own cost principles that comply with the Federal cost principles.

(d) The cost plus a percentage of cost and percentage of construction cost methods of contracting must not be used.

§ 200.325 Federal awarding agency or pass-through entity review.

(a) The non-Federal entity must make available, upon request of the Federal awarding agency or pass-through entity, technical specifications on proposed procurements where the Federal awarding agency or pass-through entity believes such review is needed to ensure that the item or service specified is the one being proposed for acquisition. This review generally will take place prior to the time the specification is incorporated into a solicitation document. However, if the non-Federal entity desires to have the review accomplished after a solicitation has been developed, the Federal awarding agency or pass-through entity may still review the specifications, with such review usually limited to the technical aspects of the proposed purchase.

(b) The non-Federal entity must make available upon request, for the Federal awarding agency or pass-through entity pre-procurement review, procurement documents, such as requests for proposals or invitations for bids, or independent cost estimates, when:

(1) The non-Federal entity's procurement procedures or operation fails to comply with the procurement standards in this part;

(2) The procurement is expected to exceed the Simplified Acquisition Threshold and is to be awarded without competition or only one bid or offer is received in response to a solicitation;

(3) The procurement, which is expected to exceed the Simplified Acquisition Threshold, specifies a ''brand name'' product;

(4) The proposed contract is more than the Simplified Acquisition Threshold and is to be awarded to other than the apparent low bidder under a sealed bid procurement; or

(5) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the Simplified Acquisition Threshold.

Title 2 —Grants and Agreements
Subtitle A —Office of Management and Budget Guidance for Grants and Agreements
Chapter I —Office of Management and Budget Governmentwide Guidance for Grants and Agreements

PART 184—BUY AMERICA PREFERENCES FOR INFRASTRUCTURE PROJECTS

Link to an amendment published at 89 FR 30109, Apr. 22, 2024.

Link to an amendment published at 89 FR 30136, Apr. 22, 2024.

Authority: Pub. L. 117-58, 135 Stat. 429.

Source: 88 FR 57787, Aug. 23, 2023, unless otherwise noted.

§ 184.1 Purpose and policy.

(a) ***Purpose.*** This part provides guidance to Federal awarding agencies on the implementation of the Buy America Preference applicable to Federal financial assistance set forth in part I of subtitle A, Buy America Sourcing Preferences, of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. 117-58) at division G, title IX, subtitle A, part I, sections 70911 through 70917.

(b) ***Policy.*** The head of each Federal agency must ensure that none of the funds made available for a Federal award for an infrastructure project may be obligated unless all of the iron, steel, manufactured products, and construction materials incorporated into the project are produced in the United States. *See* section 70914(a) of the Build America Buy America Act.

§ 184.2 Applicability, effective date, and severability.

(a) ***Non-applicability of this part to existing Buy America Preferences.*** This part does not apply to a Buy America Preference meeting or exceeding the requirements of section 70914 of the Build America, Buy America Act applied by a Federal Awarding Agency to Federal awards for infrastructure projects before November 15, 2021.

(b) ***Effective date of this part.*** The effective date of this part is October 23, 2023. Except as provided in paragraph (c) of this section, this part applies to Federal awards obligated on or after its effective date. Awards obligated on or after May 14, 2022, the effective date of the Build America, Buy America Act, and before the effective date of this part, are instead subject to OMB Memorandum M-22-11.

(c) ***Modified effective date of this part for certain infrastructure projects.*** If an infrastructure project that has previously received a Federal award obligated on or after May 14, 2022, but before the effective date of this part receives an additional Federal award obligated within one year of the effective date of this part, the additional Federal award is subject to OMB Memorandum M-22-11. However, if significant design or planning changes are made to the infrastructure project, the Federal awarding agency may apply this part to the additional Federal award. Federal awards for an infrastructure project obligated after one year from the effective date of this part are subject to this part, regardless of whether this part applied to previous awards for the project.

(d) ***Severability.*** The provisions of this part are separate and severable from one another. OMB intends that if a provision of this part is held to be invalid or unenforceable as applied to a particular person or circumstance, the provision should be construed so as to continue to give the maximum effect permitted by law as applied to other persons not similarly situated or to dissimilar circumstances. If any provision is determined to be wholly invalid and unenforceable, it should be severed from the remaining provisions of this part, which should remain in effect.

§ 184.3 Definitions.

Acronyms used in this part have the same meaning as provided in 2 CFR 200.0. Terms not defined in this part have the same meaning as provided in 2 CFR 200.1. As used in this part:

Build America, Buy America Act means division G, title IX, subtitle A, parts I-II, sections 70901 through 70927 of the Infrastructure Investment and Jobs Act (Pub. L. 117-58).

Buy America Preference means the "domestic content procurement preference" set forth in section 70914 of the Build America, Buy America Act, which requires the head of each Federal agency to ensure that none of the funds made available for a Federal award for an infrastructure project may be obligated unless all of the iron, steel, manufactured products, and construction materials incorporated into the project are produced in the United States.

Component means an article, material, or supply, whether manufactured or unmanufactured, incorporated directly into: a manufactured product; or, where applicable, an iron or steel product.

Construction materials means articles, materials, or supplies that consist of only one of the items listed in paragraph (1) of this definition, except as provided in paragraph (2) of this definition. To the extent one of the items listed in paragraph (1) contains as inputs other items listed in paragraph (1), it is nonetheless a construction material.

(1) The listed items are:

(i) Non-ferrous metals;

(ii) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);

(iii) Glass (including optic glass);

(iv) Fiber optic cable (including drop cable);

(v) Optical fiber;

(vi) Lumber;

(vii) Engineered wood; and

(viii) Drywall.

(2) Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material.

Infrastructure project means any activity related to the construction, alteration, maintenance, or repair of infrastructure in the United States regardless of whether infrastructure is the primary purpose of the project. *See also* paragraphs (c) and (d) of § 184.4.

Iron or steel products means articles, materials, or supplies that consist wholly or predominantly of iron or steel or a combination of both.

Manufactured products means:

(1) Articles, materials, or supplies that have been:

(i) Processed into a specific form and shape; or

(ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.

(2) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

Manufacturer means the entity that performs the final manufacturing process that produces a manufactured product.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

Produced in the United States means:

(1) In the case of iron or steel products, all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) In the case of manufactured products:

(i) The product was manufactured in the United States; and

(ii) The cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard that meets or exceeds this standard has been established under applicable law or regulation for determining the minimum amount of domestic content of the manufactured product. *See* § 184.2(a). The costs of components of a manufactured product are determined according to § 184.5.

(3) In the case of construction materials, all manufacturing processes for the construction material occurred in the United States. *See* § 184.6 for more information on the meaning of "all manufacturing processes" for specific construction materials.

Section 70917(c) materials means cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. *See* section 70917(c) of the Build America, Buy America Act.

§ 184.4 Applying the Buy America Preference to a Federal award.

(a) ***Applicability of Buy America Preference to infrastructure projects.*** The Buy America Preference applies to Federal awards where funds are appropriated or otherwise made available for infrastructure projects in the United States, regardless of whether infrastructure is the primary purpose of the Federal award.

(b) ***Including the Buy America Preference in Federal awards.*** All Federal awards with infrastructure projects must include the Buy America Preference in the terms and conditions. The Buy America Preference must be included in all subawards, contracts, and purchase orders for the work performed, or products supplied under the Federal award. The terms and conditions of a Federal award flow down to subawards to subrecipients unless a particular section of the terms and conditions of the Federal award specifically indicate otherwise.

(c) ***Infrastructure in general.*** Infrastructure encompasses public infrastructure projects in the United States, which includes, at a minimum, the structures, facilities, and equipment for roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property; and structures, facilities, and equipment that generate, transport, and distribute energy including electric vehicle (EV) charging.

(d) ***Interpretation of infrastructure.*** The Federal awarding agency should interpret the term "infrastructure" broadly and consider the description provided in paragraph (c) of this section as illustrative and not exhaustive. When determining if a particular project of a type not listed in the description in paragraph (c) constitutes "infrastructure," the Federal awarding agency should consider whether the project will serve a public function, including whether the project is publicly owned and operated, privately operated on behalf of the public, or is a place of public accommodation, as opposed to a project that is privately owned and not open to the public.

(e) ***Categorization of articles, materials, and supplies.***

(1) An article, material, or supply should only be classified into one of the following categories:

(i) Iron or steel products;

(ii) Manufactured products;

(iii) Construction materials; or

(iv) Section 70917(c) materials.

(2) An article, material, or supply should not be considered to fall into multiple categories. In some cases, an article, material, or supply may not fall under any of the categories listed in paragraph (e)(1) of this section. The classification of an article, material, or supply as falling into one of the categories listed in paragraph (e)(1) must be made based on its status at the time it is brought to the work site for incorporation into an infrastructure project. In general, the work site is the location of the infrastructure project at which the iron, steel, manufactured products, and construction materials will be incorporated.

(f) ***Application of the Buy America Preference by category.*** An article, material, or supply incorporated into an infrastructure project must meet the Buy America Preference for only the single category in which it is classified.

§ 184.5 Determining the cost of components for manufactured products.

In determining whether the cost of components for manufactured products is greater than 55 percent of the total cost of all components, use the following instructions:

(a) For components purchased by the manufacturer, the acquisition cost, including transportation costs to the place of incorporation into the manufactured product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(b) For components manufactured by the manufacturer, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (a) of this section, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the manufactured product.

§ 184.6 Construction material standards.

(a) The Buy America Preference applies to the following construction materials incorporated into infrastructure projects. Each construction material is followed by a standard for the material to be considered "produced in the United States."

(1) ***Non-ferrous metals.*** All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.

(2) ***Plastic and polymer-based products.*** All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.

(3) ***Glass.*** All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.

(4) ***Fiber optic cable (including drop cable).*** All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.

(5) ***Optical fiber.*** All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.

(6) ***Lumber.*** All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.

(7) ***Drywall.*** All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

(8) ***Engineered wood.*** All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

(b) Except as specifically provided, only a single standard under paragraph (a) of this section should be applied to a single construction material.

§ 184.7 Federal awarding agency's issuance of a Buy America Preference waiver.

(a) ***Justification of waivers.*** A Federal awarding agency may waive the application of the Buy America Preference in any case in which it finds that:

(1) Applying the Buy America Preference would be inconsistent with the public interest (a "public interest waiver");

(2) Types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality (a "nonavailability waiver"); or

(3) The inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall infrastructure project by more than 25 percent (an "unreasonable cost waiver").

(b) ***Requesting a waiver.*** Recipients may request waivers from a Federal awarding agency if the recipient reasonably believes a waiver is justified under paragraph (a) of this section. A request from a recipient to waive the application of the Buy America Preference must be provided to the Federal awarding agency in writing. Federal awarding agencies must provide waiver request submission instructions and guidance on the format, contents, and supporting materials required for waiver requests from recipients.

(c) ***Before issuing a proposed waiver.*** Before issuing a proposed waiver, the Federal awarding agency must prepare a detailed written explanation for the proposed determination to issue the waiver based on a justification listed under paragraph (a) of this section, including for waivers requested by a recipient.

(d) ***Before issuing a final waiver.*** Before issuing a final waiver, the Federal awarding agency must:

(1) Make the proposed waiver and the detailed written explanation publicly available in an easily accessible location on a website designated by the Federal awarding agency and the Office of Management and Budget;

(2) Except as provided in paragraph (e) of this section, provide a period of not less than 15 calendar days for public comment on the proposed waiver; and

(3) Unless the Director of OMB provides otherwise, submit the waiver determination to the Made in America Office in OMB for final review pursuant to Executive Order 14005 and section 70923(b) of the Build America, Buy America Act.

(e) ***Waivers of general applicability.*** Waivers of general applicability mean waivers that apply generally across multiple Federal awards. A Federal agency must provide a period of not less than 30 days for public comment on a proposal to modify or renew a waiver of general applicability.

§ 184.8 Exemptions to the Buy America Preference.

(a) The Buy America Preference does not apply to expenditures for assistance authorized under section 402, 403, 404, 406, 408, or 502 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5170a, 5170b, 16 5170c, 5172, 5174, or 5192) relating to a major disaster or emergency declared by the President under section 401 or 501, respectively, of such Act (42 U.S.C. 5170, 5191) or pre and post disaster or emergency response expenditures.

(b) "Pre and post disaster or emergency response expenditures" consist of expenditures for financial assistance that are:

(1) Authorized by statutes other than the Stafford Act, 42 U.S.C. 5121 *et seq.;* and

(2) Made in anticipation of or response to an event or events that qualify as an "emergency" or "major disaster" within the meaning of the Stafford Act, 42 U.S.C. 5122(1), (2).

Disadvantaged Business Enterprise Requirements Overview

EPA grantees and subrecipients are required to seek and encouraged to utilize disadvantaged business enterprises (DBEs) for their procurement needs under the grant agreement. Grantees and subrecipients must ensure that their contracts contain the following term and condition:

The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in termination of this contract or other legally available remedies.

Other requirements at 40 CFR Part 33 are described in the table below.

Compliance

DBE Certification	To qualify for EPA's DBE program, entities must meet the certification criteria under the 8% or 10% statutes, or other criteria listed under 40 CFR §33.202 and/or §33.203. **EPA's 8% Statute:** An entity must establish that it is owned or controlled by women or Historically Black Colleges and Universities (HBCUs) who are of good character and citizens of the U.S. **EPA's 10% Statute:** An entity must establish that it is owned and controlled by HBCUs, Black Americans, Hispanic Americans, Native Americans, Asian Americans, women, or disabled Americans who are of good character and citizens of the U.S.
Six Good Faith Efforts	When procuring construction, equipment, services, and supplies, grantees and subrecipients are required to make the following good faith efforts. 1. Recipients must ensure that opportunities are made to DBEs, whenever possible, through outreach and recruitment activities. This will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources. 2. Make information on forthcoming opportunities available to DBEs and arrange timeframes for and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date. 3. Consider in the contract process whether firms competing for large contracts could sub-contract with DBEs. For EPA grant recipients, this will include dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process. 4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually. 5. Use the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency of the Department of Commerce. 6. If the prime contractor awards sub-contracts, require that the prime contractor take the above steps. The good faith efforts should be followed unless they would conflict with existing Tribal or Federal law, such as the Indian Self-Determination and Education Assistance Act.

MBE/WBE Reporting	It is important for grantees and subrecipients and their contractor(s) to maintain documentation of their efforts to comply with the DBE requirements. Grantees must report to EPA on their utilization of DBEs for procurements of goods and services using EPA Form 5700-52A when the combined total of funds budgeted for procurement exceeds the Simplified Acquisition Threshold (SAT) (currently set at $250,000).
Recordkeeping	A recipient must maintain all records documenting its compliance with the requirements of this program in accordance with applicable record retention requirements for the recipient's financial assistance agreement (exemptions found in 40 CFR §33.501(c)). ▪ Recipients of Continuing Environmental Program Grants or other annual grants must create and maintain a bidders list. The lists only need to be maintained until the grant project period has expired and the recipient is no longer receiving EPA funding under the grant. ▪ Recipients of agreements to capitalize a revolving loan fund also must require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding requirements. The lists only need to be maintained until the project period for the identified loan has ended. The following information must be obtained from all prime and subcontractors: ▪ Entity's name with point of contact; ▪ Entity's mailing address, telephone number, and e-mail address; ▪ The procurement on which the entity bid or quoted, and when; and ▪ Entity's status as an MBE/WBE or non-MBE/WBE.
Contract Administration Requirements	Recipients must adhere to the following contract administration requirements: ▪ Require the recipient's prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient. ▪ Require the recipient's prime contractor to notify the recipient in writing prior to any termination of a DBE subcontractor for convenience by the prime contractor. ▪ Require the recipient's prime contractor to employ the six good faith efforts described in §33.301 in procurement of goods and services. ▪ If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts described in §33.301 if soliciting a replacement subcontractor. ▪ Ensure that each procurement contract it awards contains the term and condition specified in Appendix A concerning compliance with the requirements of this part. ▪ Ensure that the term and condition in Appendix A is included in each procurement contract awarded by an entity receiving an identified loan under a financial assistance agreement to capitalize a revolving loan fund.

More information can be found at https://www.epa.gov/grants/disadvantaged-business-enterprise-program-requirements

"General Decision Number: MN20240229 06/07/2024

State: Minnesota

Construction Types: Heavy and Highway

Counties: Anoka, Carver, Chisago, Dakota, Hennepin, Ramsey, Scott and Washington Counties in Minnesota.

Heavy and Highway Construction Projects

Please refer to Minnesota Rules 5200.1100, 5200.1101, and 5200.1102 for definitions of labor classifications on this wage determination, and direct any questions regarding such classifications to the Branch of Construction Wage Determinations.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

_____

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	· Executive Order 14026 generally applies to the contract. · The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	· Executive Order 13658 generally applies to the contract. · The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the

Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	06/07/2024

SAMN2023-096 11/20/2023

	Rates	Fringes
ARTICULATED HAULER	$ 44.67	26.40
ASBESTOS ABATEMENT WORKER	$ 39.86	24.11
BLASTER	$ 22.08	6.87
BOILERMAKER	$ 46.00	31.93
BOOM TRUCK	$ 47.25	26.40
BRICKLAYER	$ 48.51	25.76

CARPENTER.....	$ 47.08	27.91
CEMENT MASON.....	$ 48.57	24.22
ELECTRICIAN.....	$ 52.00	32.80
FLAG PERSON.....	$ 41.63	24.24
GROUND PERSON.....	$ 35.60	18.92
HEATING AND FROST INSULATORS.....	$ 47.10	24.40
IRONWORKER.....	$ 46.00	34.11
LABORER: Common or General (GENERAL LABOR WORK).....	$ 41.63	24.24
LABORER: Landscape (GARDENER, SOD LAYER AND NURSERY OPERATOR).....	$ 30.04	21.16
LABORER: Skilled (ASSISTING SKILLED CRAFT JOURNEYMAN).....	$ 41.63	24.24
LANDSCAPING EQUIPMENT (INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM		

TRACTOR WITH ATTACHMENT
SPECIFICALLY SEEDING,
SODDING, OR PLANT, AND
TWO-FRAMED FORKLIFT
(EXCLUDING FRONT,
POSIT-TRACK, AND SKID STEER
LOADERS), NO EARTHWORK OR
GRADING FOR ELEVATIONS).....$ 30.04 21.16

LINEMAN.....$ 50.86 23.57

MILLWRIGHT.....$ 43.44 33.37

OFF-ROAD TRUCK.....$ 44.67 26.40

PAINTER (INCLUDING HAND
BRUSHED, HAND SPRAYED, AND
THE TAPING OF PAVEMENT
MARKINGS).....$ 38.70 22.76

PAVEMENT MARKING OR MARKING
REMOVAL EQUIPMENT ((ONE OR
TWO PERSON OPERATORS);
SELF-PROPELLED TRUCK OR
TRAILER MOUNTED UNITS.).....$ 32.04 21.96

Piledriver (INCLUDING
VIBRATORY DRIVER OR EXTRACTOR

FOR PILING AND SHEETING

OPERATIONS).....$ 47.03 27.91

PIPEFITTER/STEAMFITTER.....$ 57.14 33.30

PIPELAYER (WATER, SEWER AND

GAS).....$ 45.13 24.24

PLUMBER.....$ 52.60 31.10

POWER EQUIPMENT OPERATOR:

(Highway/Heavy Group 2).....$ 45.61 26.40

HELICOPTER PILOT; CONCRETE PUMP; ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB; DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS; GRADER OR MOTOR PATROL; PILE DRIVING; TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED

POWER EQUIPMENT OPERATOR:

(Highway/Heavy Group 3).....$ 45.01 26.40

ASPHALT BITUMINOUS STABILIZER PLANT; CABLEWAY; CONCRETE MIXER, STATIONARY PLANT; DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY); DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS; DREDGE OR ENGINEERS,

DREDGE (POWER) AND ENGINEER; FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS; LOCOMOTIVE CRANE OPERATOR; MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE; MECHANIC ON POWER EQUIPMENT; TRACTOR, BOOM TYPE; TANDEM SCRAPER; TRUCK CRANE, CRAWLER CRANE; TUGBOAT 100 H.P AND OVER

POWER EQUIPMENT OPERATOR:

(Highway/Heavy Group 4).....$ 44.67 26.40

AIR TRACK ROCK DRILL; AUTOMATIC ROAD MACHINE (CMI OR SIMILAR); BACKFILLER OPERATOR; CONCRETE BATCH PLANT OPERATOR; BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER); BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON); BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS; CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS; CHIP HARVESTER AND TREE CUTTER; CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE; CONCRETE MIXER ON JOBSITE; CONCRETE MOBIL; CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT; CURB MACHINE; DIRECTIONAL BORING MACHINE; DOPE MACHINE (PIPELINE); DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL; DUAL TRACTOR; ELEVATING GRADER; FORK LIFT OR STRADDLE CARRIER; FORK LIFT OR LUMBER STACKER; FRONT END, SKID STEER OVER 1 TO 5 C YD; GPS REMOTE OPERATING OF EQUIPMENT; HOIST ENGINEER (POWER); HYDRAULIC TREE PLANTER; LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE); LOCOMOTIVE; MILLING,

GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE; MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS; PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE; PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY; PIPELINE WRAPPING, CLEANING OR BENDING MACHINE; POWER PLANT ENGINEER, 100 KWH AND OVER; POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES; PUGMILL; PUMPCRETE; RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS; SCRAPER; SELF-PROPELLED SOIL STABILIZER; SLIP FORM (POWER DRIVEN) (PAVING); TIE TAMPER AND BALLAST MACHINE; TRACTOR, BULLDOZER; TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING; TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER; TUB GRINDER, MORBARK, OR SIMILAR TYPE; WELL POINT DISMANTLING OR INSTALLATION

POWER EQUIPMENT OPERATOR:
(Highway/Heavy Group 5).....$ 41.36 26.40

AIR COMPRESSOR, 600 CFM OR OVER; BITUMINOUS ROLLER (UNDER EIGHT TONS); CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED); FORM TRENCH DIGGER (POWER); FRONT END, SKID STEER UP TO 1C YD; GUNITE GUNALL; HYDRAULIC LOG SPLITTER; LOADER (BARBER GREENE OR SIMILAR TYPE); POST HOLE DRIVING MACHINE/POST HOLE AUGER; POWER ACTUATED AUGER AND BORING MACHINE; POWER ACTUATED JACK; PUMP; SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR); SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER; SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER; STUMP CHIPPER AND TREE CHIPPER; TREE FARMER (MACHINE)

POWER EQUIPMENT OPERATOR:

(Highway/Heavy Group 6).....$ 40.02 26.40

CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER; CONVEYOR; DREDGE DECK HAND; FIRE PERSON OR TANK CAR HEATER; GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING); GREASER (TRACTOR); LEVER PERSON; OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT); POWER SWEEPER; SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS; TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING

SHEET METAL WORKER.....$ 44.46 29.17

Survey Field Technician
(OPERATE TOTAL STATION, GPS
RECEIVER, LEVEL, ROD OR RANGE
POLES, STEEL TAPE
MEASUREMENT; MARK AND DRIVE
STAKES; HAND OR POWER DIGGING
FOR AND IDENTIFICATION OF
MARKERS OR MONUMENTS; PERFORM
AND CHECK CALCULATIONS;
REVIEW AND UNDERSTAND
CONSTRUCTION PLANS AND LAND
SURVEY MATERIALS).....$ 41.63 24.24

TILE SETTER.....$ 34.76 23.29

TRAFFIC CONTROL PERSON
(TEMPORARY SIGNAGE).....$ 41.63 24.24

TRUCK DRIVER (Group 1).....$ 31.25 17.50
MECHANIC; TRACTOR TRAILER DRIVER; TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)

TRUCK DRIVER (Group 2).....$ 34.70 21.76
FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK

TRUCK DRIVER (Group 3).....$ 34.60 21.76
BITUMINOUS DISTRIBUTOR DRIVER; BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION); THREE AXLE UNITS

TRUCK DRIVER (Group 4).....$ 37.54 21.76
BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER); DUMP PERSON; GREASER; PILOT CAR DRIVER; RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS; TWO AXLE UNIT; SLURRY OPERATOR; TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER); TRACTOR OPERATOR, UNDER 50 H.P.

Tunnel Miner.....$ 43.13 24.24

UNDERGROUND AND OPEN DITCH
LABORER (EIGHT FEET BELOW

STARTING GRADE LEVEL).....$ 43.13 24.24

WIRING SYSTEM TECHNICIAN.....$ 44.61 20.16

WIRING SYSTEMS INSTALLER.....$ 31.25 16.34

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO

is available at
https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of

the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion

date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

State Adopted Rate Identifiers

Classifications listed under the ""SA"" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R §1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME

refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

==========

END OF GENERAL DECISION"

This page intentionally left blank.

APPENDIX B

GEOTECHNICAL EXPLORATION REPORT

HAUGO GEOTECHNICAL SERVICES

December 5, 2023 Project Number: 23-0841

City of Birchwood Village
C/o Mr. Marcus Johnson
Bolton & Menk, Inc.
307 High Point Drive N
Building 1, Suite E130
Oakdale, MN 55128

RE: Geotechnical Exploration Report, City of Birchwood Village Lift Station, Birchwood Village, Minnesota

Dear Mr. Johnson

We have completed the geotechnical exploration report for the City of Birchwood Village Lift Station. One soil boring was completed at or near the location of the proposed lift station that encountered about a foot of topsoil overlying sandy and gravelly soils that extended to the termination depth of the boring. Groundwater was encountered in the boring at about 12 ½ feet below the ground surface. The vegetation and topsoil are not suitable for foundation support and will need to be removed and replaced as needed with suitable compacted engineered fill. The underlying sandy and gravelly soils, in our opinion, are suitable for foundation support.

Specific details regarding our procedures, results and recommendations follow in the attached geotechnical exploration report.

Thank you for the opportunity to assist you on this project. If you have any questions or need additional information, please contact Paul Gionfriddo at 612-729-2959.

Sincerely,

Haugo GeoTechnical Services, LLC

Paul Gionfriddo, P.E.
Senior Engineer

GEOTECHNICAL EXPLORATION REPORT

PROJECT:

City of Birchwood Village Lift Station
Wildwood Avenue & Owl Street
Birchwood Village, Minnesota

PREPARED FOR:

City of Birchwood Village
C/o Bolton & Menk, Inc.
307 High Point Drive N
Building 1, Suite E130
Oakdale, MN 55128

PREPARED BY:

Haugo GeoTechnical Services
2825 Cedar Avenue South
Minneapolis, Minnesota 55407

Haugo GeoTechnical Services Project: 23-0841

December 5, 2023

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Paul Gionfriddo, P.E.
Senior Engineer
License Number 23093

Table of Contents

1.0 INTRODUCTION

1.1 Project Description

Bolton & Menk, Inc. on behalf of the City of Birchwood Village is preparing design and construction documents for a new lift station. We understand the lift station will replace the existing lift station at or near the intersection Wildwood Avenue and Owl Street.

Haugo GeoTechnical Services (HGTS) was retained to advance one soil borings at the proposed lift station location to evaluate soil and groundwater conditions with respect to foundation design and construction of the lift station.

1.2 Purpose

The purpose of this geotechnical exploration was to characterize subsurface soil and groundwater conditions and provide recommendations for design and construction of the lift station.

1.3 Site Description

The project site is situated in the boulevard area immediately east of the intersection of Wildwood Avenue and Owl Street in the City of Birchwood Village, Minnesota. The project site is located within a residential area of the city and is also located about 300 feet south/southwest of White Bear Lake.

1.4 Scope of Services

Our services were performed in accordance with HGTS proposal 23-0841 dated October 13, 2023. Our scope of services was performed under the terms of our General Conditions and limited to the following tasks:

- Completing one (1) standard penetration test boring to a nominal depth of 35 feet.
- Sealing the boring in accordance with MDH Regulations.
- Obtaining GPS coordinates and the ground surface elevation at the boring location. Bolton & Menk subsequently provided the ground surface elevation at the boring location.
- Visually/manually classify samples recovered from the soil borings.
- Performing laboratory tests on select soil samples.
- Preparing soil boring log(s) describing the materials encountered and the results of groundwater level measurements.
- Preparing an engineering report describing soil and groundwater conditions and providing recommendations for the lift station foundation design construction.

1.5 Documents Provided

We were provided with a plan sheet titled "2023 Lift Station Reconstruction Boring Location" dated October 2023 that was prepared by Bolton & Menk. The plan consisted of a survey of the area and showed the area of the existing lift station and proposed soil boring location.

1.6 Locations and Elevations

The soil boring location was selected and staked in the field by Bolton & Menk. The approximate soil boring location is shown on the "2023 Lift Station Reconstruction Boring Location" plan provided by Bolton & Menk.

2.0 FIELD PROCEDURES

The standard penetration test boring was advanced on October 27, 2023 by HGTS with a rotary drilling rig, using continuous flight augers to advance the boreholes. Representative samples were obtained from the borings, using the split-barrel sampling procedures in general accordance with ASTM Specification D-1586. In the split-barrel sampling procedure, a 2-inch O.D. split-barrel spoon is driven into the ground with a 140-pound hammer falling 30 inches. The number of blows required to drive the sampling spoon the last 12 inches of an 18-inch penetration is recorded as the standard penetration resistance value, or "N" value. The results of the standard penetration tests are indicated on the boring log. The samples were sealed in containers and provided to the HGTS office for testing and soil classification.

A field log of the boring was prepared by the HGTS drill crew. The log contains visual classifications of the soil materials encountered during drilling, as well as the driller's interpretation of the subsurface conditions between samples and water observation notes. The final boring log included with this report represents an interpretation of the field log and includes modifications based on visual/manual method observation of the samples.

The soil boring log, general terminology for soil description and identification, and classification of soils for engineering purposes are also included in the appendix. The soil boring log identifies and describes the materials encountered, the relative density or consistency based on the Standard Penetration resistance (N-value, "blows per foot") and groundwater observations.

The strata changes were inferred from the changes in the samples and auger cuttings. The depths shown as changes between strata are only approximate. The changes are likely transitions, variations can occur beyond the location of the boring.

3.0 RESULTS

3.1 Soil Conditions

At the surface the boring encountered about 1 foot of topsoil composed of sandy lean clay that was black in color and contained some roots.

Below the topsoil the boring encountered sandy and gravelly soil composed of; silty sand and sandy gravel that extended to the termination depths of the boring. The boring met with refusal above its intended termination depth in very dense sandy gravel at about 20 feet below the ground surface.

The penetration resistance values (N-Values), shown as blows per foot (bpf) on the boring logs, within the sandy and gravelly soil ranged from 1 to greater than 50 bpf indicating a very loose to very dense relative density.

3.2 Groundwater

Groundwater was encountered in the soil boring at about 12 ½ feet below the ground surface corresponding to about elevation 921 feet above mean sea level.

Water levels were measured on the date as noted on the boring log and the period of water level observation was relatively short. Groundwater monitoring wells or piezometers would be required to more accurately determine water levels. Seasonal and annual fluctuations in the groundwater levels should be expected.

Based on information obtained from the Minnesota Department of Natural resources website the Ordinary High-Water Level (OHW) of nearby White Bear Lake is 924.89 feet. The highest and lowest recorded water levels were reported to be 926.7 and 918.84 feet, respectively.

3.3 Laboratory Testing

Laboratory moisture content and grain size analyses were performed on selected samples recovered from the soil boring. Soil moisture contents and the P-200 portion of the grain size analyses are summarized in Table 1 and are also shown on the boring logs adjacent to the sample tested. The full grain size analyses (particle size distribution report) are included in the Appendix.

Table 1. Summary of Laboratory Tests

Boring Number	Sample	Depth (feet)	Moisture Content (%)*	P-200 (%)*
SB-1	S-3	5	12	23
SB-1	S-7	15	20	21

*Moisture content and P-200 content were rounded to the nearest ½ percent.

3.4 OSHA Soil Classification

The soils encountered in the soil borings consisted of silty sand, poorly graded sand with silt and sandy gravel corresponding to the ASTM classification of SM, SP-SM and GP, respectively. These soils will be Type C soils under Department of Labor Occupational Safety and Health Administration (OSHA) guidelines.

An OSHA-approved qualified person should review the soil classification in the field. Excavations must comply with the requirements of OSHA 29 CFR, Part 1926, Subpart P, "Excavations and Trenches." This document states excavation safety is the responsibility of the contractor. The project specifications should reference these OSHA requirements.

4.0 DISCUSSION

4.1 Proposed Construction

We understand this project will include installing a new lift station. Based on correspondence with Bolton & Menk the existing lift station will remain in-place.

We were not provided any information regarding the replacement lift station except that the depth of the lift station will likely be on the order of "mid 20's" feet below the ground surface. Based on previous lift station projects with Bolton & Menk we anticipate the lift station will consist of a 6-foot diameter fiberglass package grinder station (wet well) with attached valve vault. The wet well will be set on a reinforced concrete slab. The exact invert depth/elevation of the wet well was not provided but is anticipated to be between 20 and 30 feet below existing site grades corresponding to elevations ranging from about 903 ½ to 913 ½ feet. We assume the existing generator will be used to provide power to the new lift station. The total weight of the lift station and associated components was not provided. For the purposes of this evaluation, we anticipate that foundation loads will be relatively light so that soil bearing pressure(s) up to 3,000 pounds per square foot (psf) will be sufficient for foundation support.

We assume that influent and effluent piping will be constructed at typical burial depths ranging from about 5 to 10 feet below existing site grades.

Changes in the nature, design, or location of all or parts of this project may occur. Additional analyses and revised recommendations may be necessary.

4.2 Discussion

The soil boring encountered about a foot of topsoil which is not suitable for foundation support and will need to be removed and replaced with suitable compacted engineered fill. Since the base of the lift station will bear about 20 to 30 feet below the ground surface then removal of the vegetation and topsoil will be incidental to construction.

The soil boring encountered very dense sandy gravel condition at about 19 to 20 feet below the ground surface and the boring met with auger refusal at about 21 feet below the ground surface. With the base of the lift station anticipated to bear about 20 to 30 feet below the ground surface the boring did not extend deep enough to adequately characterize soil conditions below the anticipated invert elevation. For additional information we reviewed the Geologic Atlas of Washington County and based on that review the surficial soils in the area of the site likely consist of glacial outwash deposits composed of sand, gravelly sand and gravel and these deposits can be in excess of 100 feet thick. Bedrock is reported to be located at depths ranging from about 100 to 150 feet below the site (Geologic Atlas of Washington County, 2016, County Atlas Series C-39, Plates 3 and 6).

Based on our review of the geologic atlas it appears that sandy and gravelly soil conditions will likely be encountered at the base of the lift station. The sandy and gravelly soil conditions, in our opinion, are suitable for lift station support. Based on the soil boring and review of the geologic atlas we do not anticipate that soil corrections in excess of stripping the vegetation and topsoil will be required.

Excavations for lift station construction are anticipated to extend to about 20 to 30 feet below the ground surface. At typical backslopes of 1½:1 in Type C soils the excavation could extend about 30 to 45 feet, or more, beyond the edges of the footings/base slab. Sloughing soils could increase that distance. This could result in excavations extending near any adjoining structures, streets and utilities posing a significant risk of undermining those structures. If site constraints will limit the lateral extent of the excavations, then shoring will likely be required.

Groundwater was encountered in the boring at about 12 ½ feet below the ground surface corresponding to about elevation 921 feet. With the base of the lift station set at about elevations ranging from about 903 ½ to 913 ½ groundwater will be encountered and dewatering will likely be required.

5.0 RECOMMENDATIONS

5.1 Lift Station and Sanitary Sewer/Utility Construction

Excavations We recommend that all vegetation, topsoil and any soft or otherwise unsuitable materials, if encountered, be removed from below the lift station and pipe invert elevations. Based on the soil boring we do not anticipate that soil corrections in excess of stripping the topsoil will be required.

In areas where the excavations extend below the proposed lift station elevations the excavation requires oversizing. We recommend the perimeter of the excavation be extended a foot outside the proposed footprint for every foot below finish grade (1H:1V oversizing). The purpose of the oversizing is to provide lateral support of the lift station and/or pipe.

Oversized rock particles, if any, should be removed and replaced with sand bedding to provide uniform support of the lift station base. In wet excavations "clear rock" or coarse filter aggregate could be used for pipe support, provided this meets any manufacturer requirements.

Shoring Excavations for lift station construction are anticipated to extend to depths ranging from about 20 to 30 feet below existing ground surface elevations. At typical 1 ½ horizontal:1 vertical excavation side-slopes in Type C soils, this could result in the lateral limits of the excavation extending about 30 to 45 feet in each lateral direction. Sloughing soil conditions could increase those distances. If site constraints will not permit an open cut, a partial open cut with a trench box or sheet piling may be possible alternatives. Caisson construction methods may also be an alternative. It is our opinion that the estimated soil parameters presented in Table 2 can be used for shoring system design, if required.

Pipe Bedding It will be necessary to properly bed the utilities for uniform support. We recommend bedding material be thoroughly compacted around the pipes.

Oversized rock particles, if any, should be removed and replaced with sand bedding to avoid point load on the pipe. In wet excavation "clear rock" or coarse filter aggregate could be used for pipe support, provided this meets any manufacturer requirements.

Backfilling Assuming the lift station will consist of a fiberglass system, we anticipate the manufacturer will have specific requirements with respect to backfill materials and compaction requirements. We recommend that the lift station be backfilled and compacted per the manufacturer's requirement. We offer the following recommendations regarding backfill and compaction. In the event these recommendations conflict with the manufacturers requirements then the manufacturer's requirements shall govern.

Additional backfill, if needed, to attain subgrade elevation can consist of any mineral soil provided it is free of organic material or other deleterious materials. However, we recommend using sandy soil similar to the on-site material for uniformity. The exception being below or within 2 feet of the groundwater table where we recommend using clean coarse sand having less than 50 percent of its particles passing the #40 sieve and less than 5 percent of the particles passing the # 200 sieve.

The on-site sandy soils appear to be suitable for reuse as fill or backfill. Moisture contents of the soils ranged from about 12 to 20 percent. Soils that will be used or reused as fill or backfill, could require some moisture conditioning, either wetting or drying, to meet the recommend compaction levels. Summer months are typically more favorable for drying wet soils.

We recommend that fill and backfill be compacted to a minimum of 98 percent of its standard Proctor density (ASTM D 698) below the bottom slab and to a minimum of 95 percent as backfill, except the upper 3 feet of pavement areas where the compaction level should be increased to a minimum of 100 percent. In landscaped areas we recommend a minimum compaction of 90 percent.

In areas where fill depths will exceed 10 feet, we recommend that compaction levels be increased to minimum of 100 percent of the materials standard Proctor density. Even with the increased compaction levels a construction delay may be appropriate to allow for post construction settlement of the fill mass.

Granular fill classified as SP or SP-SM, if used, should be placed within 65 percent to 105 percent of its optimum moisture content as determined by the standard Proctor. Other fill soils should be placed within 3 percentage points above and 1 percentage point below its optimum moisture content as determined by the standard Proctor. All fill should be placed in thin lifts and be compacted with a large self-propelled vibratory compactor operating in vibratory mode.

Construction Delay Significant thicknesses of soil, approximately 20 to 30 feet, will be placed to backfill the lift station and to attain design grades. Even with increased compaction levels, post construction consolidation of the soils will likely occur. If not accounted for this settlement could result in distress to structures supported in or on the fill. A construction delay may be appropriate to allow for post construction settlement of the fill mass prior to placing any exterior slabs.

Dewatering Groundwater was encountered in the boring at about 12 ½ feet below the ground surface corresponding to about elevation 921. With the base of the lift station set at elevations ranging from about 903 ½ to 913 ½ groundwater will be encountered and dewatering will be required.

Where dewatering is required, we recommend the groundwater level be temporarily lowered to a minimum of 2 feet below the lowest anticipated excavation elevation to allow for construction. In sand soils, we do not recommend attempting to dewater from within the excavation. Upward

seepage will loosen and disturb the excavation, resulting in a "quick condition." Rather, we recommend groundwater be drawn down below the anticipated excavation bottom.

It may be appropriate to consult a dewatering contractor to review the soil boring log, develop a dewatering plan and evaluate the impact of dewatering on adjacent structures, if any.

Lift Station - Foundation At the proposed invert elevation we anticipate the lift station will bear on very dense sandy gravel which in our opinion is suitable for foundation support. With the lift station foundation area prepared as recommended it is our opinion the foundation slab can be designed for a net allowable bearing pressure up to 3,000 psf. We estimate total settlement of the foundation slab will be less than 1 inch.

The base of the lift station will be constructed below the measured groundwater level and below the Ordinary High-Water level of nearby White Bear Lake. We recommend the lift station be designed to resist the appropriate uplift/buoyancy forces.

Lift Station - Below-Grade Wall Design We understand the lift station will consist of a pre-engineered fiberglass system. We further understand that the lift station will be backfilled and compacted to meet manufacturer's requirements.

In the event the lift station will consist of cast in-place concrete elements, it is our opinion that the estimated soil parameters presented in Table 2 can be used for below grade wall design. These estimated soil parameters are based commonly accepted soil parameters for soils within this locale. Laboratory tests to validate these estimates were beyond the scope of this exploration and were not performed. Shoring system designers will be responsible to perform any tests and/or select the appropriate soil parameters for their design(s).

It must be noted that the estimated soil parameters do not account for groundwater. Groundwater must be accounted for at 62.4 pound per cubic foot (pcf)

Table 2. Estimated Soil Parameters

Soil Type	Estimated Unit Weight (pcf)	Estimated Friction Angle (degrees)	At-Rest Pressure (pcf)	Active Soil Pressure (pcf)	Passive Soil Pressure (pcf)
Sand (SP & SP-SM)	120	32	55	35	390
Other Soils (SC, SM, CL, CL-ML)	135	28	70	50	375

5.2 Exterior Slabs/Generator Slab

We assume the existing generator will provide power to the new lift station. That being the case we do not anticipate that new exterior slabs/generator pads will be constructed as part of this project.

In the event a new generator pad is required we anticipate that the near surface soils could consist of silty sand meeting the ASTM classification SM which are moderately to highly frost susceptible. If these soils become saturated and freeze, significant heave may occur. This heave can be a nuisance at critical grade areas and can result in cracks in the slabs. One way to help reduce the potential for heaving is to remove the frost-susceptible soils below the slabs down to bottom of footing grades and replace them with non-frost susceptible backfill consisting of sand having less than 5 percent of the particles by weight passing the number 200 sieve.

If this approach is used and the excavation bottoms terminate in non-free draining soil, we recommend a drain tile be installed along the bottom outer edges of the excavation to collect and remove any water that may accumulate within the sand. The bottom of the excavation should be graded away from the slab.

If the banks of the excavations to remove the frost-susceptible soils are not sloped, abrupt transitions between the frost-susceptible and non-frost-susceptible backfill will exist along which unfavorable amounts of differential heaving may occur. Such transitions could exist between exterior slabs and sidewalks, between exterior slabs and pavements or along the slabs themselves. To address this issue, we recommend sloping the excavations to remove frost-susceptible soils at a minimum 3:1 (horizontal: vertical) gradient.

An alternative method of reducing frost heave is to place a minimum of 2 inches of extruded polystyrene foam insulation beneath the slabs and extending it about 4 feet beyond the slabs. The insulation will reduce frost penetration into the underlying soil and reduce heave. Six to 12 inches of granular soil is typically placed over the insulation to protect it during construction.

Another alternative for reducing frost heave is to support the slabs on frost depth footings. A void space of at least 4 inches should be provided between the slab and the underlying soil to allow the soil to heave without affecting the slabs.

5.3 Pavement Recommendations

Excavations for lift station construction could extend into/onto the nearby streets so that replacing the bituminous pavements could be required. We assume that any replacement pavements will be constructed to match the existing pavement section or in accordance with City of Birchwood Village standard plates. That being the case we assume that recommendations for bituminous pavement design and construction are not required. Recommendations of pavement design and construction can be provided if requested.

6.0 CONSTRUCTION CONSIDERATIONS

6.1 Excavation

The soils encountered in the soil borings consisted of silty sand, poorly graded sand with silt and sandy gravel corresponding to the ASTM classification of SM, SP-SM and GP, respectively. These soils will be Type C soils under Department of Labor Occupational Safety and Health Administration (OSHA) guidelines.

Temporary excavations in Type C soils should be constructed at a minimum of 1 ½ foot horizontal to every 1-foot vertical within excavations. Slopes constructed in this manner may still exhibit surface sloughing. If site constraints do not allow the construction of slopes with these dimensions, temporary shoring may be required.

6.2 Observations

A geotechnical engineer or qualified engineering technician should observe the excavation subgrade to evaluate if the subgrade soils are similar to those encountered in the borings and adequate to support the proposed construction.

6.3 Backfill and Fills

Site soils that will be excavated and reused as backfill and fill appear to be above their assumed optimum moisture content. We anticipate it may be necessary to moisture condition (dry) portions of these soils to achieve the recommended compaction. We recommend that fill and backfill be placed in lifts not exceeding 4 to 12 inches, depending on the size of the compactor and materials used.

6.4 Testing

We recommend density tests of backfill and fills placed during lift station, utility and pavement construction. Samples of the proposed materials should be submitted to our laboratory prior to placement for evaluation of their suitability and to determine their optimum moisture content and maximum dry density (Standard Proctor).

6.5 Winter Construction

If site grading and construction is anticipated to proceed during cold weather, all snow and ice should be removed from cut and fill areas prior to additional grading and placement of fill. No fill should be placed on frozen soil and no frozen soil should be used as fill or backfill.

Concrete delivered to the site should meet the temperature requirements of ASTM and/or ACI. Concrete should not be placed on frozen soil. Concrete should be protected from freezing until the necessary strength is obtained.

7.0 PROCEDURES

7.1 Soil Classification

The drill crew chief visually and manually classified the soils encountered in the borings in general accordance with ASTM D 2488, "Description and Identification of Soils (Visual-Manual Procedure)". Soil terminology notes are included in the Appendix. The samples were returned to our laboratory for review of the field classification by a geotechnical engineer. Samples will be retained for a period of 30 days.

7.2 Groundwater Observations

Immediately after taking the final samples in the bottom of the borings, the hole was checked for the presence of groundwater. Again, at the end of the drilling day, the borings were re-checked for the presence of groundwater with the levels and time delay being noted on the boring logs.

8.0 GENERAL

8.1 Subsurface Variations

The analyses and recommendations presented in this report are based on data obtained from a limited number of soil borings. Variations can occur away from the borings, the nature of which may not become apparent until additional exploration work is completed or construction is conducted. A reevaluation of the recommendations in this report should be made after performing on-site observations during construction to note the characteristics of any variations. The variations may result in additional excavation costs and it is suggested that a contingency be provided for this purpose.

It is recommended that we be retained to perform the observation and testing program during construction to evaluate whether the design is as expected, if any design changes have affected the validity of our recommendations, and if our recommendations have been correctly interpreted and implemented in the designs, specifications and construction methods. This will allow correlation of the soil conditions encountered during construction to the soil borings and will provide continuity of professional responsibility.

8.2 Review of Design

This report is based on the design of the proposed structures as related to us for preparation of this report. It is recommended that we be retained to review the geotechnical aspects of the design and specifications. With the review we will evaluate whether any changes have affected the validity of the recommendations and whether our recommendations have been correctly interpreted and implemented in the design and specifications.

8.3 Groundwater Fluctuations

We made water level measurements in the borings at the times and under the conditions stated on the boring logs. The data was interpreted in the text of this report. The period of observation was relatively short and fluctuations in the groundwater level may occur due to rainfall, flooding, irrigation, spring thaw, drainage, and other seasonal and annual factors not evident at the time the observations were made. Design drawings and specifications and construction planning should recognize the possibility of fluctuations.

8.4 Use of Report

This report is for the exclusive use of the City of Birchwood Village, Bolton & Menk, Inc. and their design team to use to design the proposed structures and prepare construction documents. In the absence of our written approval, we make no representation and assume no responsibility to other parties regarding this report. The data, analysis and recommendations may not be appropriate for other structures or purposes. We recommend that parties contemplating other structures or purposes contact us.

8.5 Level of Care

Haugo GeoTechnical Services, LLC has used the degree of skill and care ordinarily exercised under similar circumstance by members of the profession currently practicing in this locality. No warranty expressed or implied is made.

APPENDIX

2023 Lift Station Reconstruction

City of Birchwood Village

Boring Location

October 2023

BOLTON & MENK

SB #1
EG: 932.76
BORING DEPTH 35'

Wildwood Avenue

Owl Street

LIFT STATION
CENTER COVER=936.18
RIM=935.77
TOP OF FLOOR=918.01

SMH
RIM=932.61
INV=924.91 NW
INV=924.10 SW
INV=923.72 SE
TOP OF CONDUIT=920.06
TOP OF DIP=921.69

BENCHMARK
TNH
944.32

0 25 50
HORZ.
SCALE FEET

H:\BIRCHWVI_CI_MN\0N1131616\CAD\C3D\STKE-131616-Boring Location 10-10-23.dwg 10/10/2023 9:21:31 AM

Haugo GeoTechnical Services
2825 Cedar Ave South
Minneapolis, MN, 55407
Telephone: 612-729-2959
Fax: 763-445-2238

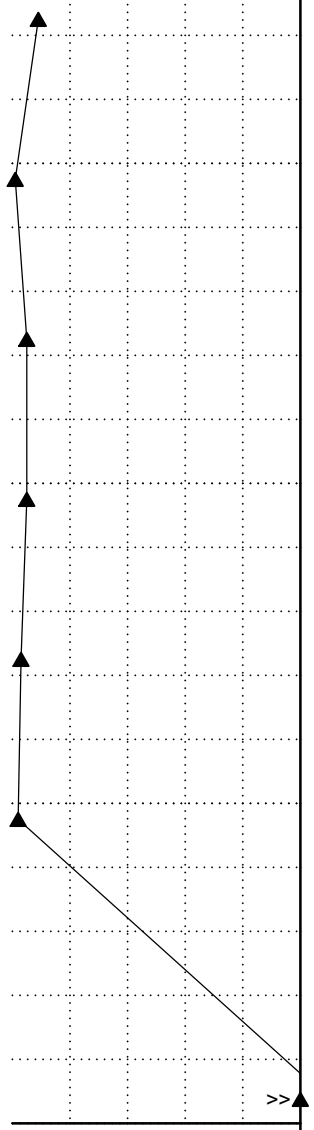
BORING NUMBER SB-1

CLIENT Bolton & Menk
PROJECT NAME City of Birchwood Village Lift Station
PROJECT NUMBER 23-0841
PROJECT LOCATION Birchwood Village, MN
DATE STARTED 10/27/23 **COMPLETED** 10/27/23
GROUND ELEVATION 933.5 ft **HOLE SIZE** 3 1/4 inches
DRILLING CONTRACTOR HGTS- 45
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger/Split Spoon
▽ **AT TIME OF DRILLING** 12.50 ft / Elev 921.00 ft
LOGGED BY NC **CHECKED BY** PG
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	Moisture Content (%)
0		Sandy Lean Clay, trace Roots, black, wet (Topsoil)	AU 1			
		(SM) Silty Sand, fine to coarse grained, with Gravel, brown, moist, loose to very loose (Glacial Outwash)	SS 2		3-4-5 (9)	
5		P-200= 23%	SS 3		0-0-1 (1)	12
			SS 4		1-1-4 (5)	
10			SS 5		1-2-3 (5)	
		▽	SS 6		1-1-2 (3)	
15		P-200= 21%	SS 7		1-1-1 (2)	20
20		(GP) Sandy Gravel, brown, waterbearing, very dense (Glacial Outwash)	SS 8		16-50/0"	

Refusal at 20.0 feet.
Bottom of borehole at 20.0 feet

▲ SPT N VALUE ▲
20 40 60 80
PL MC LL
20 40 60 80
☐ FINES CONTENT (%) ☐
20 40 60 80



Particle Size Distribution Report

% +3"	% Gravel	% Sand		% Fines	
		Coarse	Fine	Silt	Clay
0.0	20.0	19.0	38.0	23.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2	100.0		
1 1/2"	100.0		
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	93.0		
#4	84.0		
#10	80.0		
#16	76.0		
#40	61.0		
#60	46.0		
#100	34.0		
#200	23.0		

* (no specification provided)

Soil Description

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 8.3267 D_{85}= 5.5728 D_{60}= 0.4086
D_{50}= 0.2875 D_{30}= 0.1199 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sample Number: SB-1 Sample-3 @ 5'

Date: 11-30-2023

Haugo GeoTechnical Services
Maple Grove, Minnesota

Client: Bolton & Menk
Project: City of Birchwood Village Lift Station
Project No: 23-0841 **Figure**

Tested By: RR

Particle Size Distribution Report

% +3"	% Gravel	% Sand		% Fines	
		Coarse	Fine	Silt	Clay
0.0	3.0	11.0	65.0	21.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3"	100.0		
2	100.0		
1 1/2"	100.0		
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	98.0		
#4	98.0		
#10	97.0		
#16	86.0		
#40	86.0		
#60	63.0		
#100	38.0		
#200	21.0		

* (no specification provided)

Soil Description

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 1.4698 D_{85}= 0.4086 D_{60}= 0.2364
D_{50}= 0.1954 D_{30}= 0.1168 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sample Number: SB-1 Sample-7 @ 14.5

Date: 11-30-2023

Haugo GeoTechnical Services Maple Grove, Minnesota

Client: Bolton & Menk
Project: City of Birchwood Village Lift Station
Project No: 23-0841 **Figure**

Tested By: RR

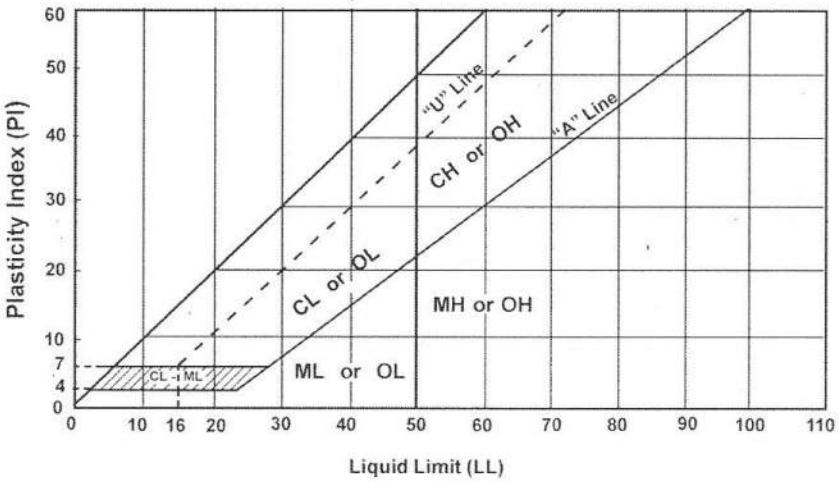
HAUGO GEOTECHNICAL SERVICES

Descriptive Terminology of Soil

Standard D 2487 - 00
Classification of Soils for Engineering Purposes
(Unified Soil Classification System)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [a]				Soils Classification	
				Group Symbol	Group Name [b]
Coarse-grained Soils more than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels 5% or less fines [e]	$C_u \geq 4$ and $1 \leq C_c \leq 3$ [c]	GW	Well-graded gravel [d]
			$C_u < 4$ and/or $1 > C_c > 3$ [c]	GP	Poorly graded gravel [d]
		Gravels with Fines More than 12% fines [e]	Fines classify as ML or MH	GM	Silty gravel [d f g]
			Fines classify as CL or CH	GC	Clayey gravel [d f g]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands 5% or less fines [i]	$C_u \geq 6$ and $1 \leq C_c \leq 3$ [c]	SW	Well-graded sand [h]
			$C_u < 6$ and/or $1 > C_c > 3$ [c]	SP	Poorly graded sand [h]
		Sands with Fines More than 12% [i]	Fines classify as ML or MH	SM	Silty sand [f g h]
			Fines classify as CL or CH	SC	Clayey sand [f g h]
Fine-grained Soils 50% or more passed the No. 200 sieve	Silts and Clays Liquid limit less than 50	Inorganic	PI > 7 and plots on or above "A" line [j]	CL	Lean clay [k l m]
			PI < 4 or plots below "A" line [j]	ML	Silt [k l m]
		Organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic clay [k l m n]
				OL	Organic silt [k l m o]
	Silts and clays Liquid limit 50 or more	Inorganic	PI plots on or above "A" line	CH	Fat clay [k l m]
			PI plots below "A" line	MH	Elastic silt [k l m]
		Organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OH	Organic clay [k l m p]
				OH	Organic silt [k l m q]
Highly Organic Soils		Primarily organic matter, dark in color and organic odor		PT	Peat

a. Based on the material passing the 3-in (75mm) sieve.
b. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders or both" to group name.
c. $C_u = D_{60} / D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
d. If soil contains ≥15% sand, add "with sand" to group name.
e. Gravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay
f. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
g. If fines are organic, add "with organic fines" to group name.
h. If soil contains ≥ 15% gravel, add "with gravel" to group name.
i. Sands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay
j. If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
k. If soil contains 10 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
l. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soil contains ≥ 30% plus No. 200 predominantly gravel, add "gravelly" to group name.
n. PI ≥ 4 and plots on or above "A" line.
o. PI < 4 or plots below "A" line.
p. PI plots on or above "A" line.
q. PI plots below "A" line.



Laboratory Tests

DD	Dry density, pcf	OC	Organic content, %
WD	Wet density, pcf	S	Percent of saturation, %
MC	Natural moisture content, %	SG	Specific gravity
LL	Liquid limit, %	C	Cohesion, psf
PL	Plastic limit, %	∅	Angle of internal friction
PI	Plasticity index, %	qu	Unconfined compressive strength, psf
P200	% passing 200 sieve	qp	Pocket penetrometer strength, tsf

Particle Size Identification

Boulders	over 12"
Cobbles	3" to 12"
Gravel	
Coarse	3/4" to 3"
Fine	No. 4 to 3/4"
Sand	
Coarse	No. 4 to No. 10
Medium	No. 10 to No. 40
Fine	No. 40 to No. 200
Silt	< No. 200, PI < 4 or below "A" line
Clay	< No. 200, PI ≥ 4 and on or above "A" line

Relative Density of Cohesionless Soils

Very loose	0 to 4 BPF
Loose	5 to 10 BPF
Medium dense	11 to 30 BPF
Dense	31 to 50 BPF
Very dense	over 50 BPF

Consistency of Cohesive Soils

Very soft	0 to 1 BPF
Soft	2 to 3 BPF
Rather soft	4 to 5 BPF
Medium	6 to 8 BPF
Rather stiff	9 to 12 BPF
Stiff	13 to 16 BPF
Very stiff	17 to 30 BPF
Hard	over 30 BPF

Drilling Notes

Standard penetration test borings were advanced by 3 1/4" or 6 1/4" ID hollow-stem augers unless noted otherwise. Jetting water was used to clean out auger prior to sampling only where indicated on logs. Standard penetration test borings are designated by the prefix "ST" (Split Tube). All samples were taken with the standard 2" OD split-tube sampler, except where noted.

Power auger borings were advanced by 4" or 6" diameter continuous-flight, solid-stem augers. Soil classifications and strata depths were inferred from disturbed samples augered to the surface and are, therefore, somewhat approximate. Power auger borings are designated by the prefix "B."

Hand auger borings were advanced manually with a 1 1/2" or 3 1/4" diameter auger and were limited to the depth from which the auger could be manually withdrawn. Hand auger borings are indicated by the prefix "H."

BPF: Numbers indicate blows per foot recorded in standard penetration test, also known as "N" value. The sampler was set 6" into undisturbed soil below the hollow-stem auger. Driving resistances were then counted for second and third 6" increments and added to get BPF. Where they differed significantly, they are reported in the following form: 2/12 for the second and third 6" increments, respectively.

WH: WH indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

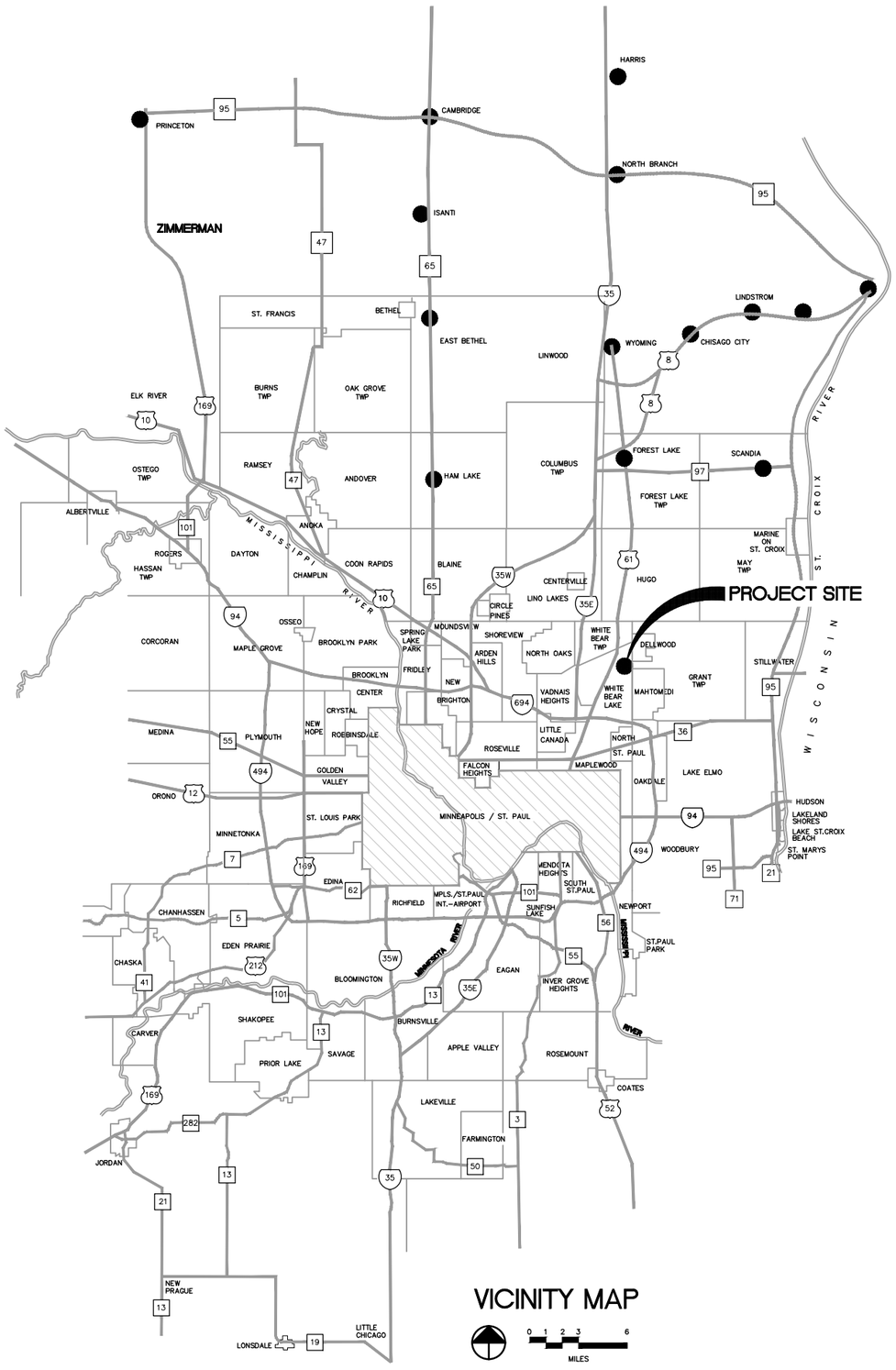
WR: WR indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

TW indicates thin-walled (undisturbed) tube sample.

Note: All tests were run in general accordance with applicable ASTM standards.

APPENDIX C

PLANS – 2001 LIFT STATION MODIFICATIONS



VICINITY MAP

0 1 2 3 6
MILES

WILDWOOD AVENUE LIFT STATION MODIFICATIONS

FEBRUARY 2001

INDEX OF SHEETS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE _____ REG.NO. _____

1326 ENERGY PARK DRIVE
ST. PAUL, MINNESOTA 55108
(651) 644-4389
Howard R. Green Company
CONSULTING ENGINEERS

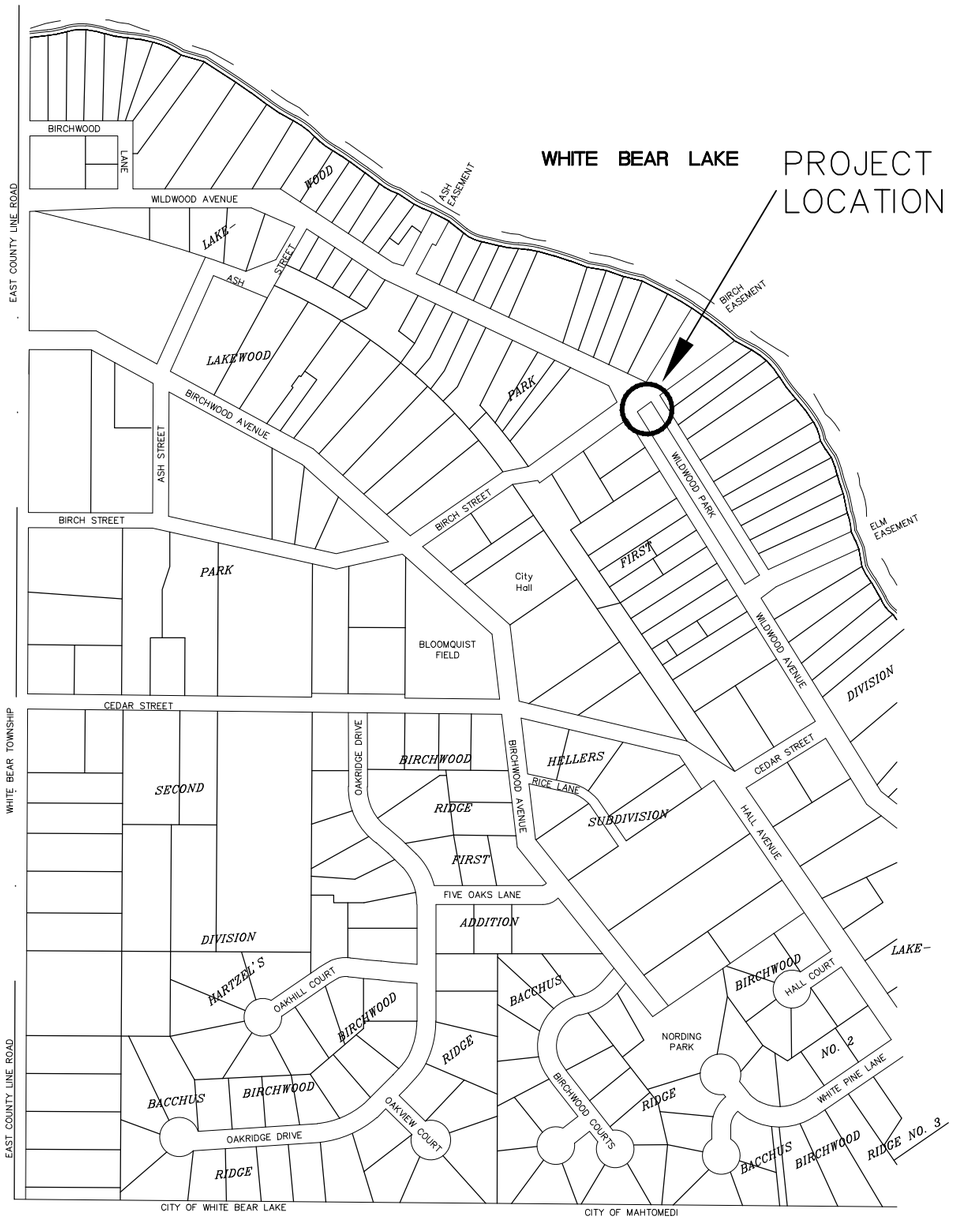
PREPARED FOR:

VILLAGE OF BIRCHWOOD

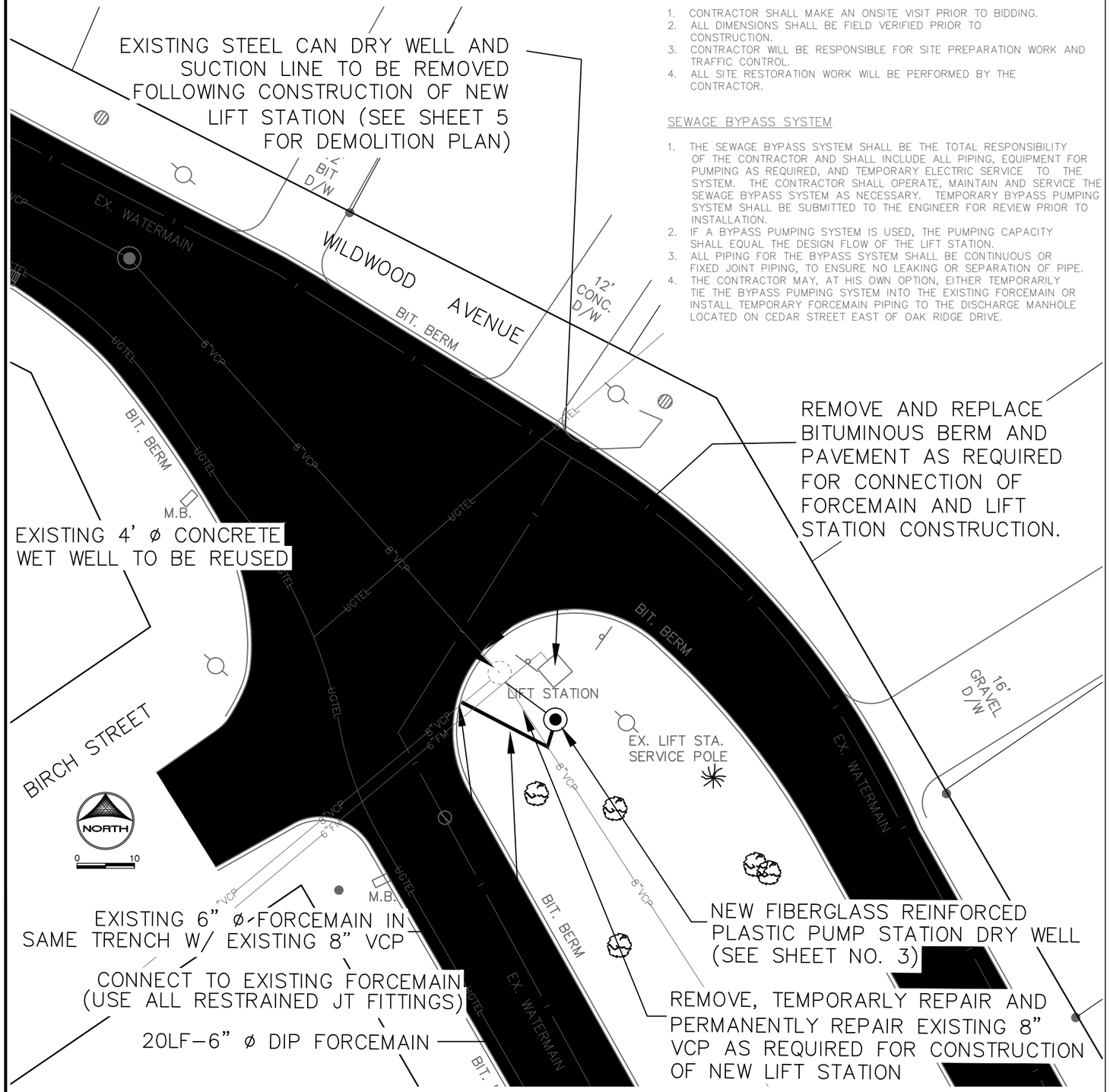
February 09, 2001 1:40:04 p.m.
812730j\812730T.DWG

GOPHER STATE ONE CALL, INC. WAS CONTACTED AND A DESIGN LOCATE WAS REQUESTED. THE DESIGN TICKET NO. IS 8175. THE FOLLOWING LIST OF UTILITY AGENCIES WERE IDENTIFIED AS HAVING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA.

CITY OF BIRCHWOOD
AT&T BROADBAND
EXCEL ENERGY
QUEST



VICINITY MAP



GENERAL NOTES

1. CONTRACTOR SHALL MAKE AN ONSITE VISIT PRIOR TO BIDDING.
2. ALL DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
3. CONTRACTOR WILL BE RESPONSIBLE FOR SITE PREPARATION WORK AND TRAFFIC CONTROL.
4. ALL SITE RESTORATION WORK WILL BE PERFORMED BY THE CONTRACTOR.

SEWAGE BYPASS SYSTEM

1. THE SEWAGE BYPASS SYSTEM SHALL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE ALL PIPING, EQUIPMENT FOR PUMPING AS REQUIRED, AND TEMPORARY ELECTRIC SERVICE TO THE SYSTEM. THE CONTRACTOR SHALL OPERATE, MAINTAIN AND SERVICE THE SEWAGE BYPASS SYSTEM AS NECESSARY. TEMPORARY BYPASS PUMPING SYSTEM SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
2. IF A BYPASS PUMPING SYSTEM IS USED, THE PUMPING CAPACITY SHALL EQUAL THE DESIGN FLOW OF THE LIFT STATION.
3. ALL PIPING FOR THE BYPASS SYSTEM SHALL BE CONTINUOUS OR FIXED JOINT PIPING, TO ENSURE NO LEAKING OR SEPARATION OF PIPE.
4. THE CONTRACTOR MAY, AT HIS OWN OPTION, EITHER TEMPORARILY TIE THE BYPASS PUMPING SYSTEM INTO THE EXISTING FORCEMAIN OR INSTALL TEMPORARY FORCEMAIN PIPING TO THE DISCHARGE MANHOLE LOCATED ON CEDAR STREET EAST OF OAK RIDGE DRIVE.

DESIGNED BY: MG/EY DRAWN BY: TE/EY
APPROVED BY: APPROVED BY JOB NUMBER 812730J
CAD DATE: February 13, 2001 8:54:39 a.m.
CAD FILE: 812730j\812730A.DWG

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE _____ REG.NO. _____

NO.	DATE	BY	REVISION DESCRIPTION

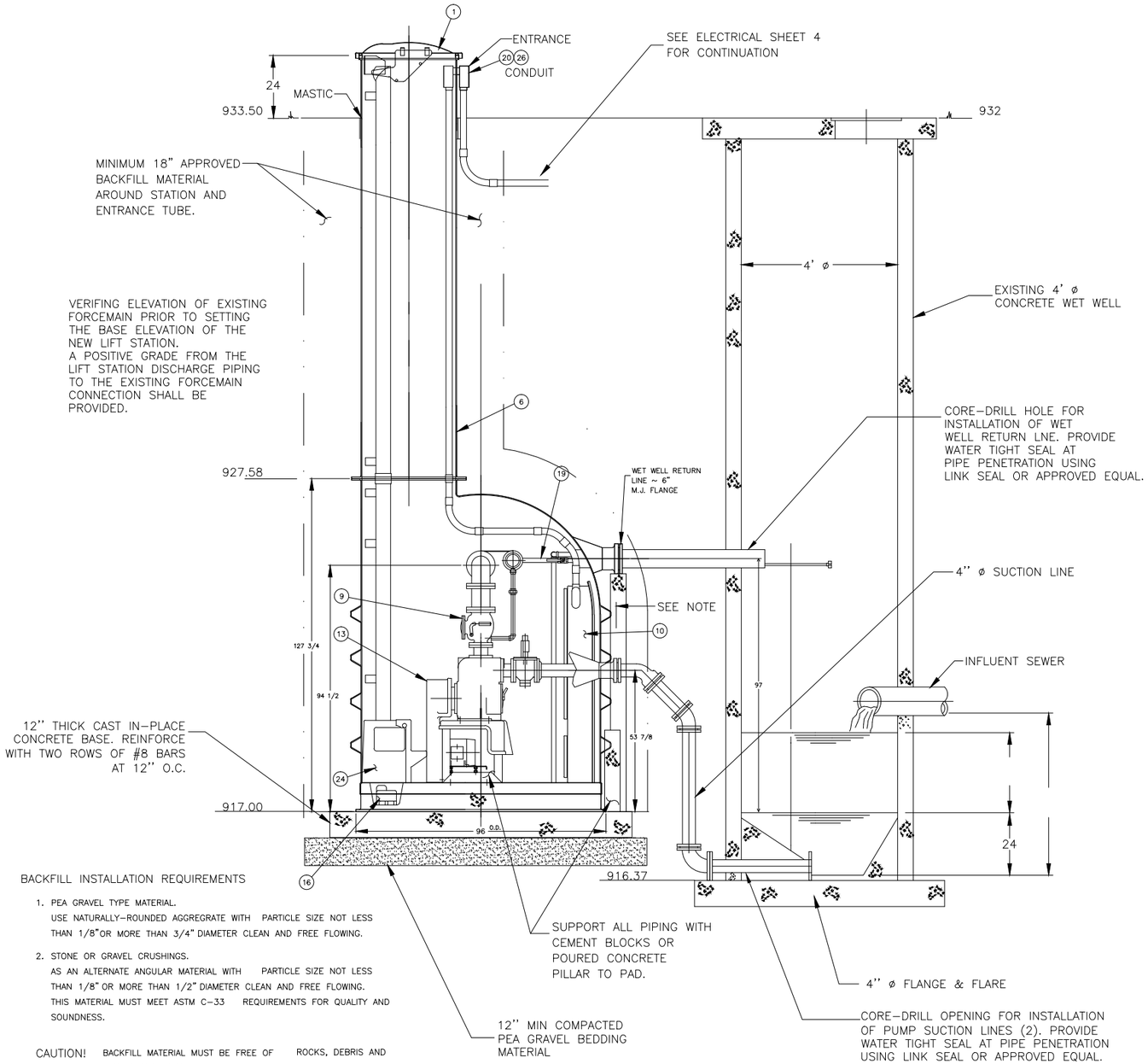
Howard R. Green Company
CONSULTING ENGINEERS
1326 ENERGY PARK DRIVE
ST. PAUL, MINNESOTA 55108
(651) 644-4389

VILLAGE OF BIRCHWOOD
WILDWOOD AVENUE LIFT STATION
MODIFICATIONS

LOCATION MAP / LIFT STATION SITE PLAN
BIRCHWOOD VILLAGE

SHEET NO. 2

Images: MAP.TIF



ELEVATION VIEW

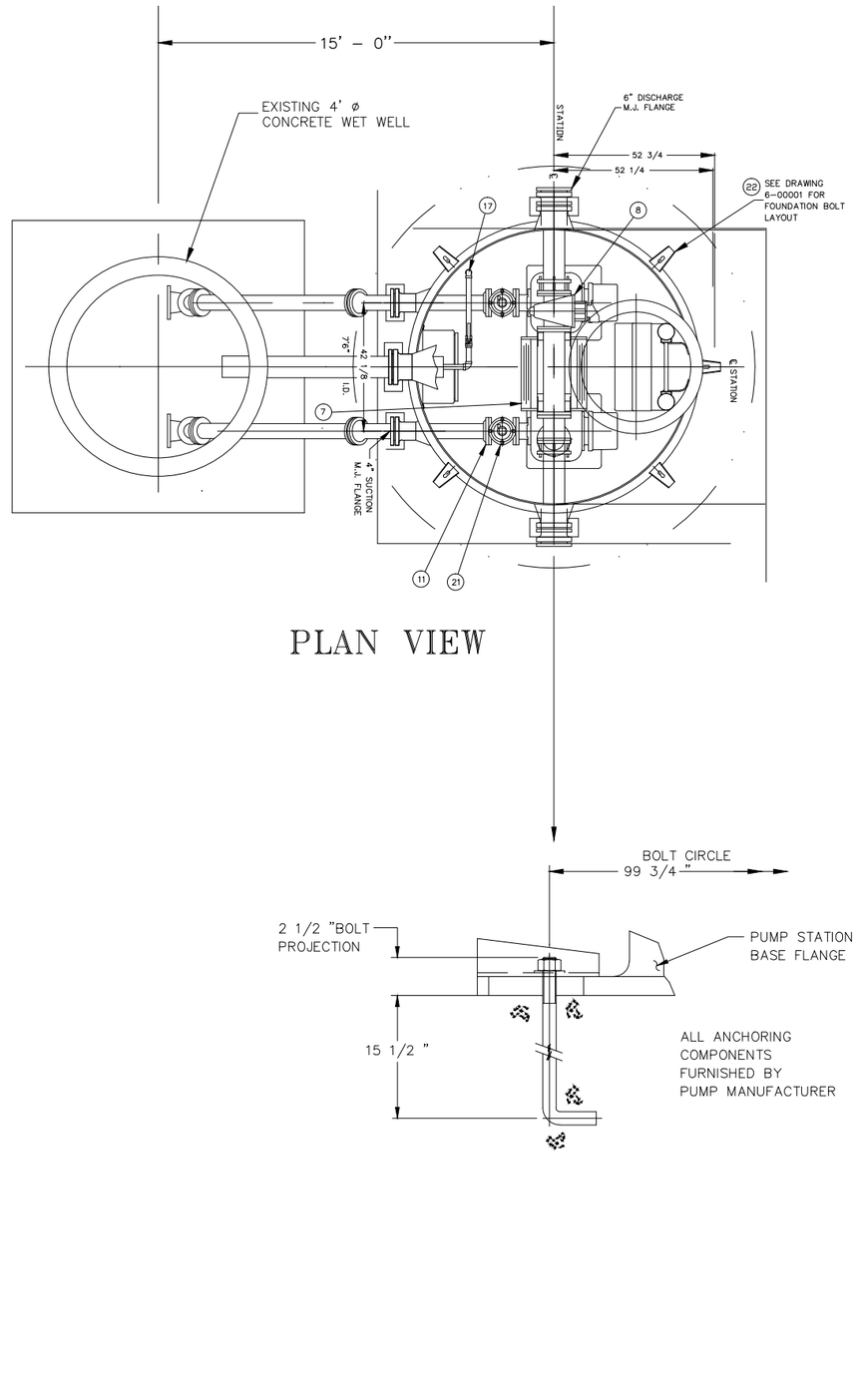
BACKFILL INSTALLATION REQUIREMENTS

1. PEA GRAVEL TYPE MATERIAL.
   USE NATURALLY-ROUNDED AGGREGRATE WITH PARTICLE SIZE NOT LESS THAN 1/8"OR MORE THAN 3/4" DIAMETER CLEAN AND FREE FLOWING.
2. STONE OR GRAVEL CRUSHINGS.
   AS AN ALTERNATE ANGULAR MATERIAL WITH PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 1/2" DIAMETER CLEAN AND FREE FLOWING. THIS MATERIAL MUST MEET ASTM C-33 REQUIREMENTS FOR QUALITY AND SOUNDNESS.

CAUTION! BACKFILL MATERIAL MUST BE FREE OF ROCKS, DEBRIS AND FROZEN SECTIONS.

CAUTION! DO NOT USE SHALE, CLAY, SLAG, CINDERS, LOAMS, SILTS, STONE SCREENINGS, STONE DUST, SHELLS OR SOFT LIMESTONE.

IF ANOTHER MATERIAL IS USED TO FILL TO GRADE LEVEL, A POLYETHYLENE FILM OR SUITABLE SUBSTITUTE MUST BE USED TO COVER THE BACKFILL MATERIAL LISTED ABOVE.



PLAN VIEW

DESIGNED BY: KN DRAWN BY: TE/EY
APPROVED BY: APPROVED BY JOB NUMBER 812730J
CAD DATE: February 19, 2001 3:04:05 p.m.
CAD FILE: 812730j\812730C.DWG

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE _____ REG.NO. _____

NO.	DATE	BY	REVISION DESCRIPTION

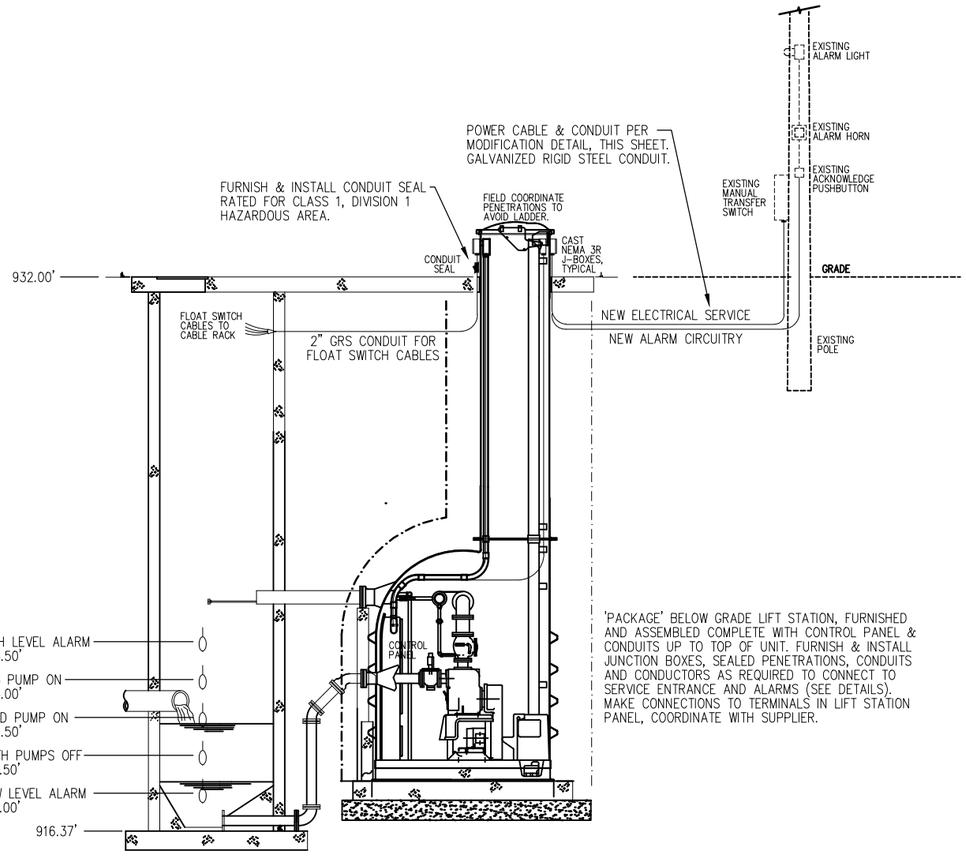
1326 ENERGY PARK DRIVE
ST. PAUL, MINNESOTA 55108
(651) 644-4389
Howard R. Green Company
CONSULTING ENGINEERS

VILLAGE OF BIRCHWOOD
WILD WOOD AVENUE LIFT STATION

7'6" DIA. UNDERGROUND SEWAGE
PUMPING STATION TYPICAL INSTALLATION

SHEET NO. 3

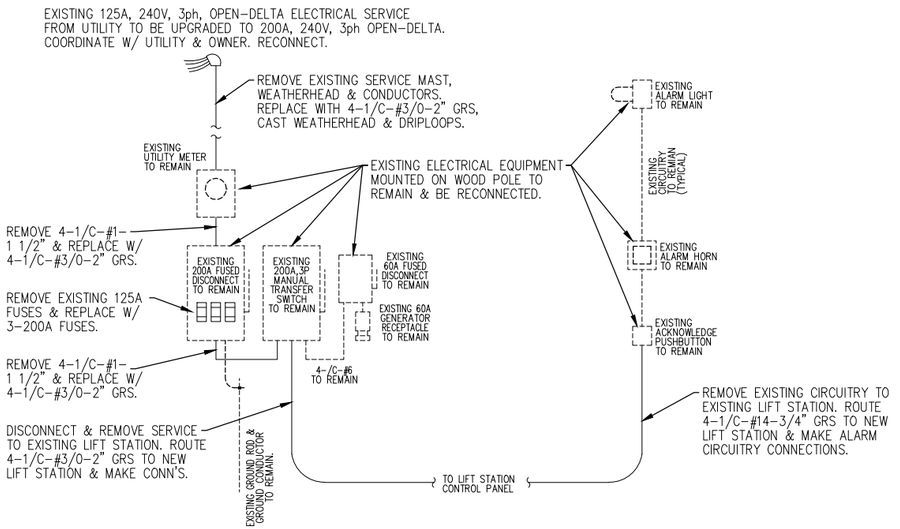
KAI #00396A---SHEET E1---PS: 1=1



'PACKAGE' BELOW GRADE LIFT STATION, FURNISHED AND ASSEMBLED COMPLETE WITH CONTROL PANEL & CONDUITS UP TO TOP OF UNIT. FURNISH & INSTALL JUNCTION BOXES, SEALED PENETRATIONS, CONDUITS AND CONDUCTORS AS REQUIRED TO CONNECT TO SERVICE ENTRANCE AND ALARMS (SEE DETAILS). MAKE CONNECTIONS TO TERMINALS IN LIFT STATION PANEL, COORDINATE WITH SUPPLIER.

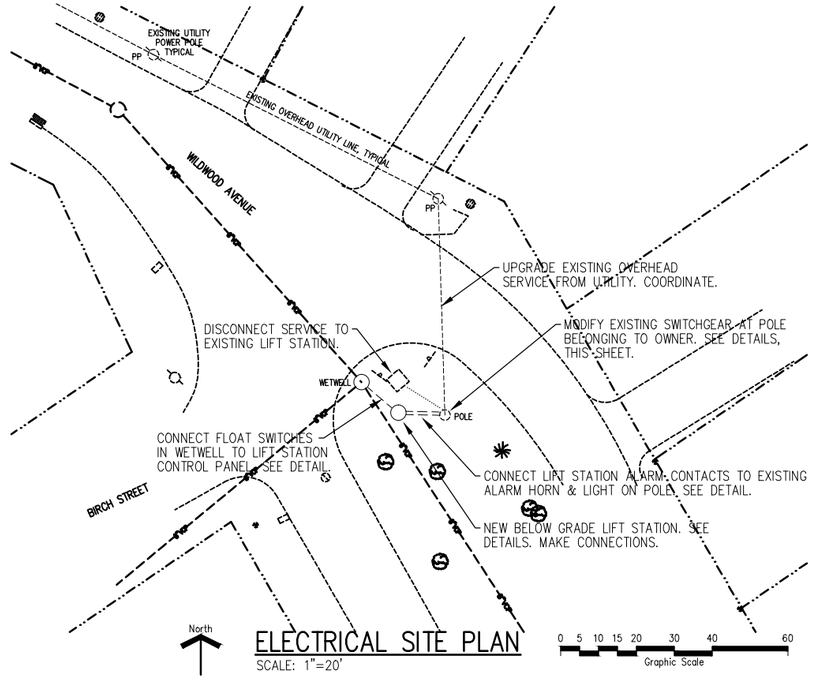
LIFT STATION ELECTRICAL SECTION DETAIL

NO SCALE SOME ITEMS ROTATED IN PLANE OF PROJECTION FOR CLARITY.



SWITCHGEAR MODIFICATIONS DETAIL

NO SCALE



ELECTRICAL SITE PLAN

SCALE: 1"=20'

DESIGNED BY: SSS JOB DATE:
DRAWN BY: CPM JOB NUMBER
CAD DATE:
CAD FILE:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 09 FEB 01 REG.NO. 25753

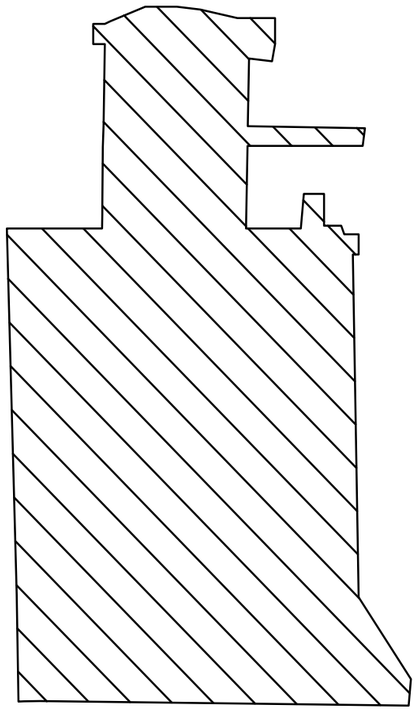
NO.	DATE	BY	REVISION DESCRIPTION

Howard R. Green Company
1326 ENERGY PARK DRIVE
ST. PAUL, MINNESOTA 55108
(651) 644-4389

CITY OF BIRCHWOOD VILLAGE
WILDWOOD AVENUE LIFT STATION
BIRCHWOOD VILLAGE, MN.

SHEET TITLE
ELECTRICAL PLAN + DETAILS

SHEET NO.
4



916.37

NOTE: FOLLOWING CONSTRUCTION AND START–UP OF NEW LIFT STATION, REMOVE ENTIRE EXISTING STEEL CAN DRYWELL. ALL EXISTING EQUIPMENT AND MATERIALS, INCLUDING STRUCTURAL MATERIALS, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. EXISTING PIPING INCLUDING PUMP SUCTION AND SUMP PUMP DISCHARGE PIPING SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EXISTING PIPE PENETRATION HOLES SHALL BE CAPPED AND GROUTED TO PROVIDE A WATERTIGHT SEAL. BACKFILL AND COMPACT TO 95% STANDARD PROCTOR DENSITY (ASTM D698) WITH SELECT BACKFILL MATERIAL.

WILDWOOD AVE. LIFT STATION

SCALE: NONE

Xrefs: DIANNADEMO.DWG ORGDEMO.DWG

DESIGNED BY: KFN DRAWN BY: RAW
APPROVED: KFN JOB NUMBER 810070J
CAD DATE: February 19, 2001 3:15:57 p.m.
CAD FILE: 812730j\812730D.DWG

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE _____ REG.NO. _____

NO.	DATE	BY	REVISION DESCRIPTION

1326 ENERGY PARK DRIVE
ST. PAUL, MINNESOTA 55108
(651) 644–4389

Howard R. Green Company
CONSULTING ENGINEERS

VILLAGE OF BIRCHWOOD
WILDWOOD AVENUE LIFT STATION

DEMOLITION PLAN
WILDWOOD AVENUE
LIFT STATION DEMOLITION PLAN

CITY OF BIRCHWOOD VILLAGE

WILDWOOD AVENUE

Lift Station (details, Sh. 10)

Power company to move exist. pole

BIRCH ST.

Boring #3-1963

MH #41

MH #8L

Wet Well

300'

215.8'

Scattered trees in park

ce Main - in trench
h 9" VCP

B.M.-943.28
Top hyd., 150 E. of Birch on Wildwood

B.M.-938.39
Top hyd., Elm & Wildwood

950
940
930
920

MH #41
942.26

WET WELL
M.H. #8L
932.35

rock

rock on

300' - 9" VCP @ 0.30 %

215.6' - 9" VCP @ 0.5

924.84

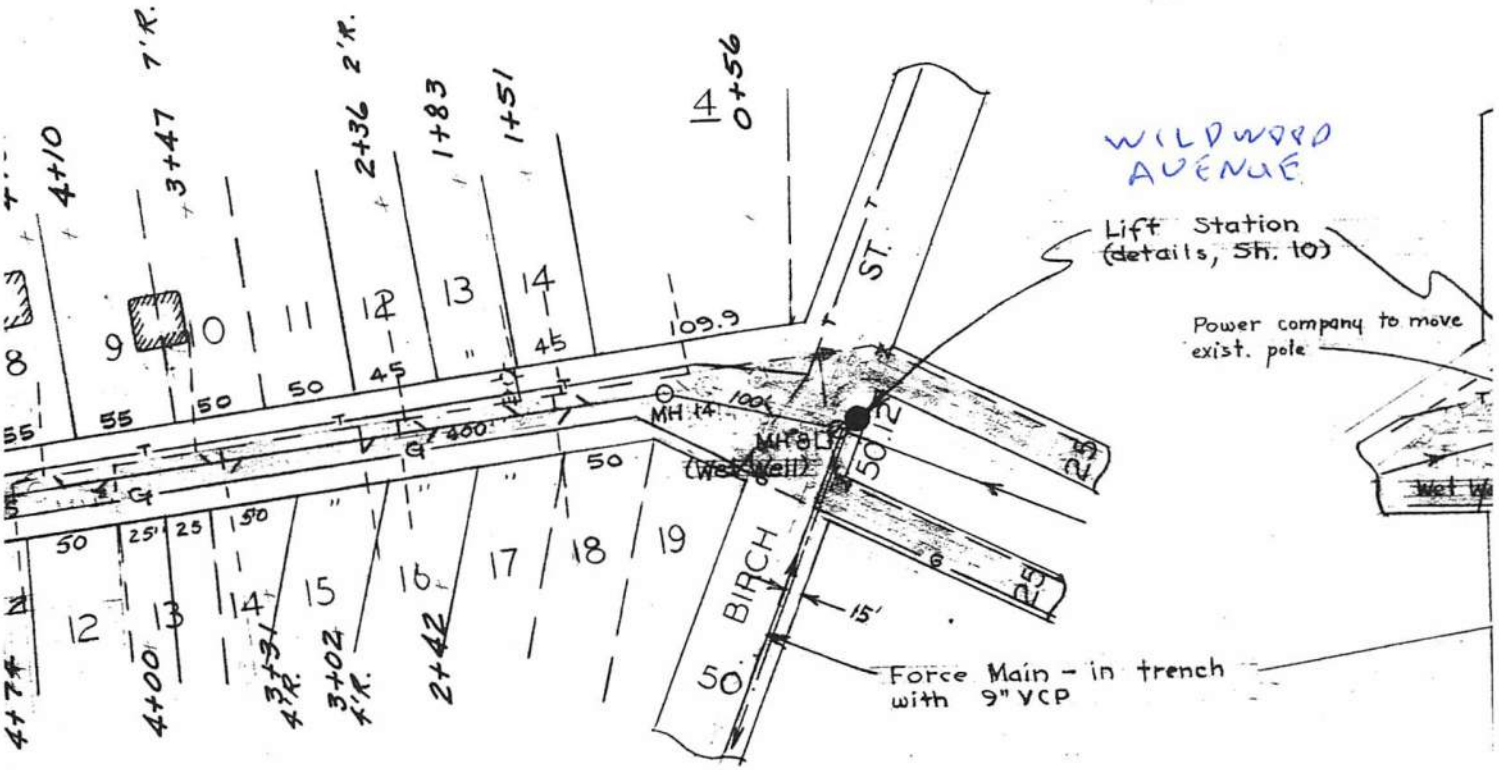
925.91

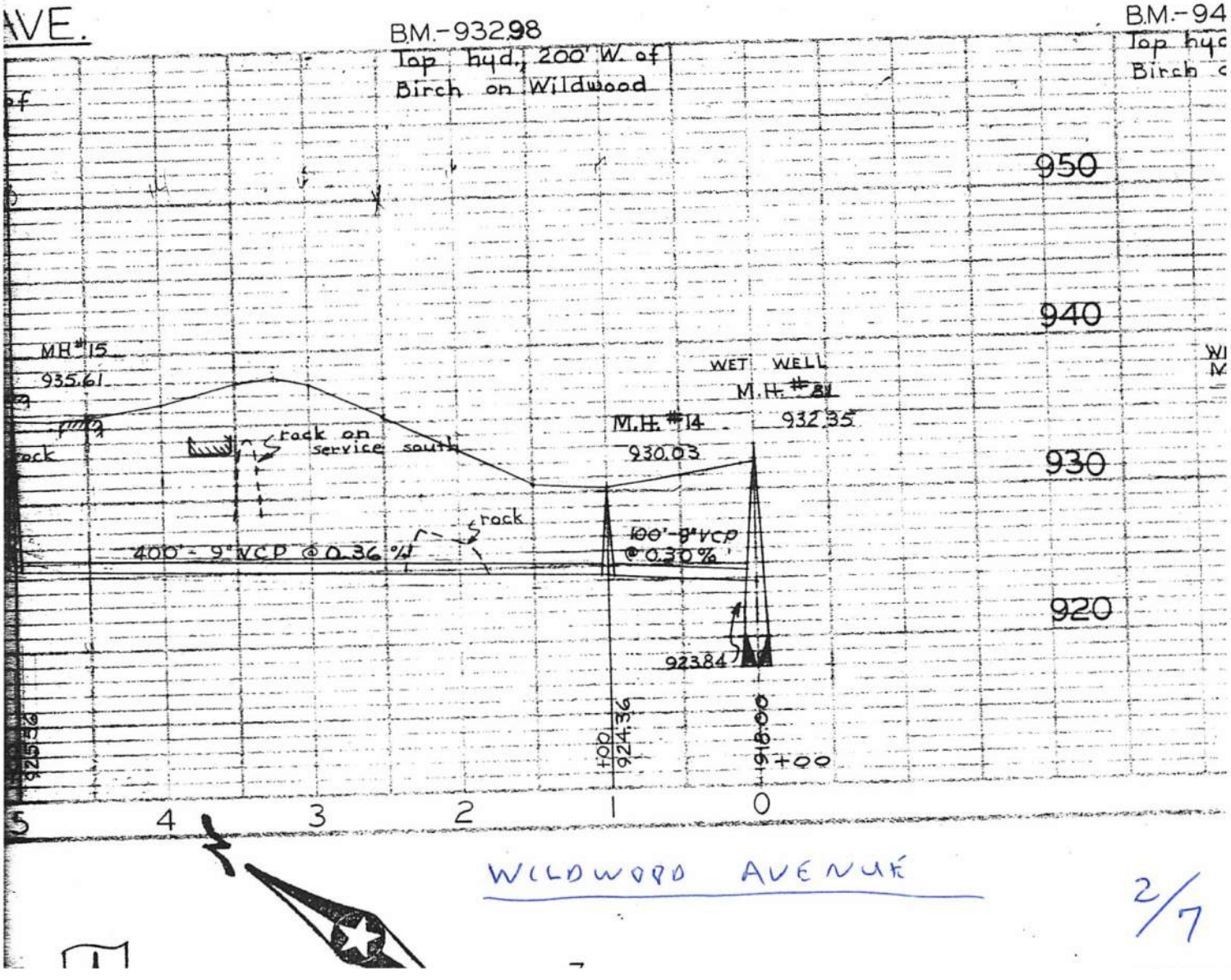
0+00
1+00
2+00
3+00
4+00

0 1 2 3 4

WILDWOOD AVENUE

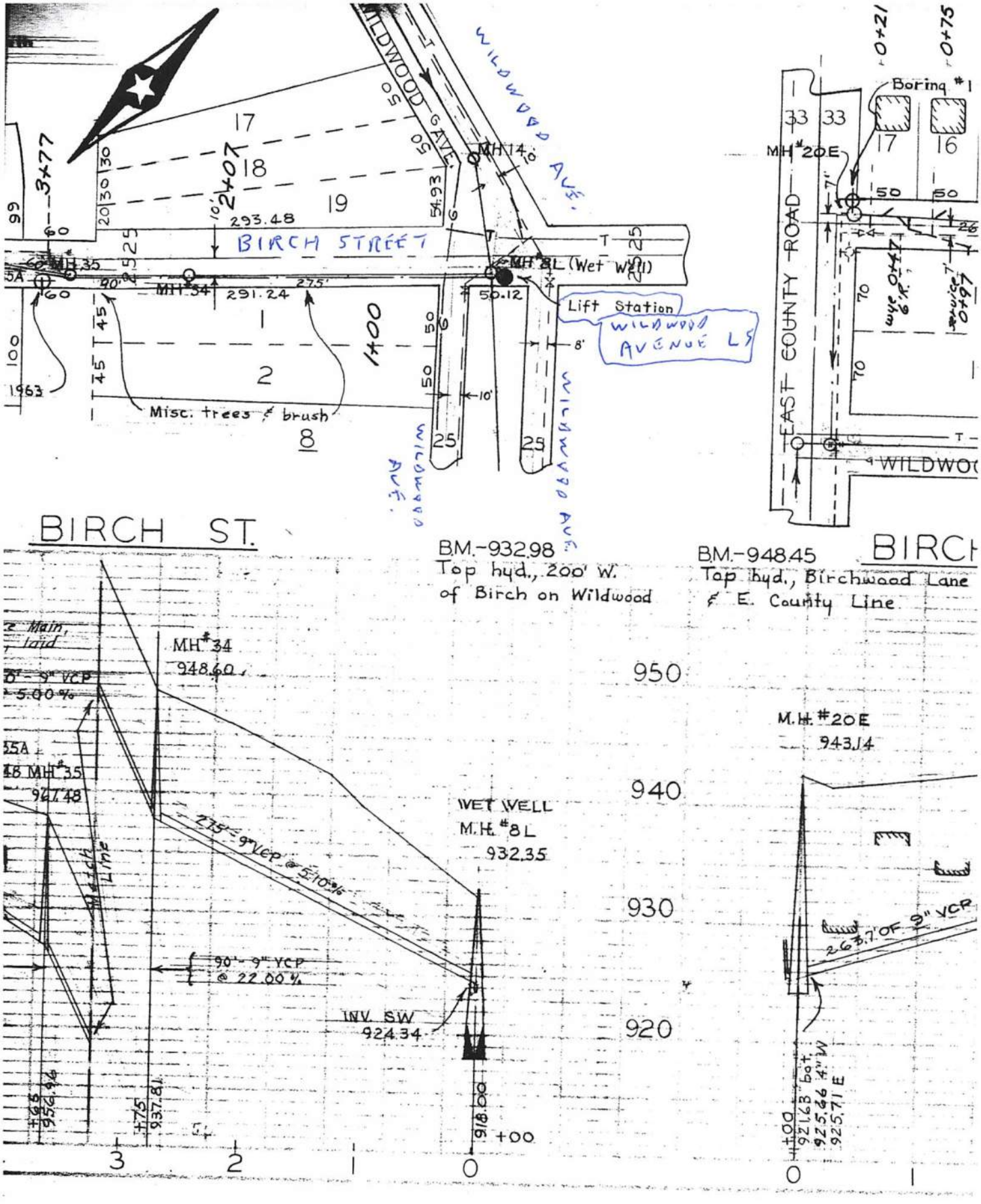
1/7



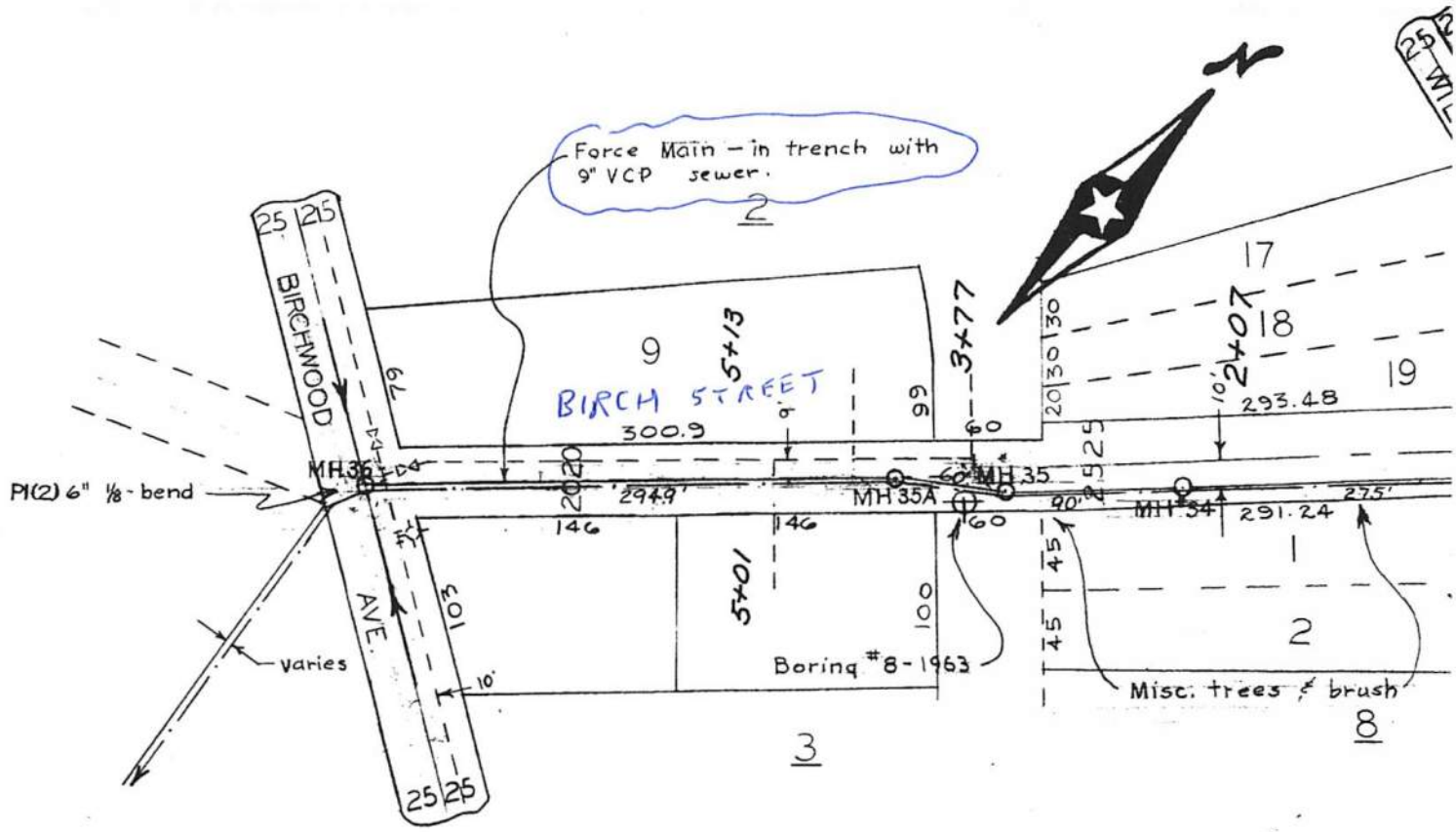


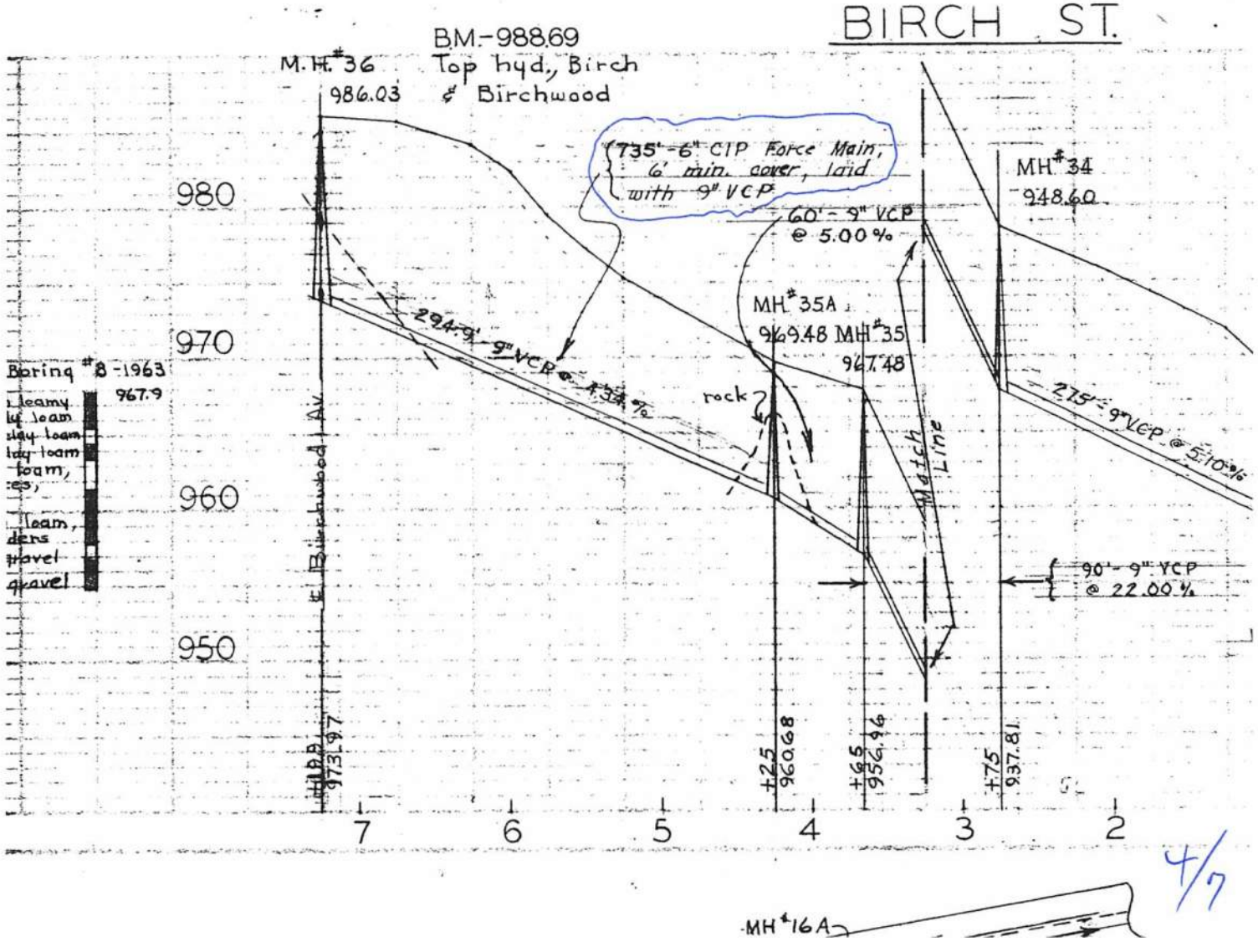
WILDWOOD AVENUE

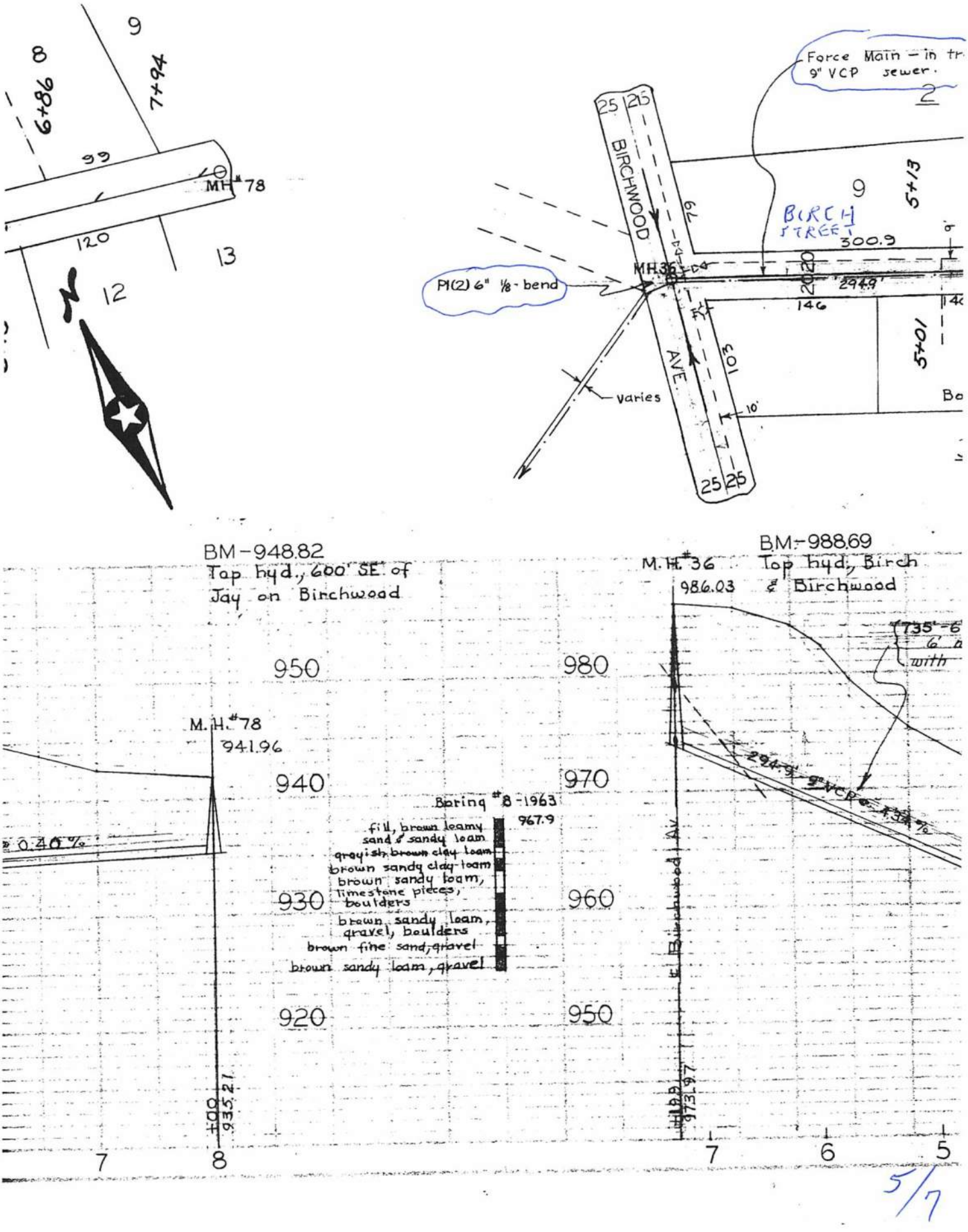
2/7


WILDWOOD AVE.
WILDWOOD GAVE.
MH 14
293.48
BIRCH STREET
MH #35
MH #34
291.24
MH #8L (Wet Well)
Lift Station
WILDWOOD AVENUE LS
50.12
Misc. trees & brush
1400
2407
1963
WILDWOOD AVE.
WILDWOOD AVE.
Boring #1
MH #20E
EAST COUNTY ROAD
BIRCH ST.
BIRCH
B.M.-932.98
Top hyd., 200' W.
of Birch on Wildwood
B.M.-948.45
Top hyd., Birchwood Lane
& E. County Line
MH #34
948.60
8" - 9" VCP
5.00%
MH #35
947.48
Match Line
275'-9" VCP @ 5.10%
90'-9" VCP
@ 22.00%
WET WELL
M.H. #8L
932.35
INV. SW
924.34
950
940
930
920
M.H. #20E
943.14
263.7' OF 9" VCP
924.63 bot.
925.46 4" W
925.71 E
WILDWOOD AVE.

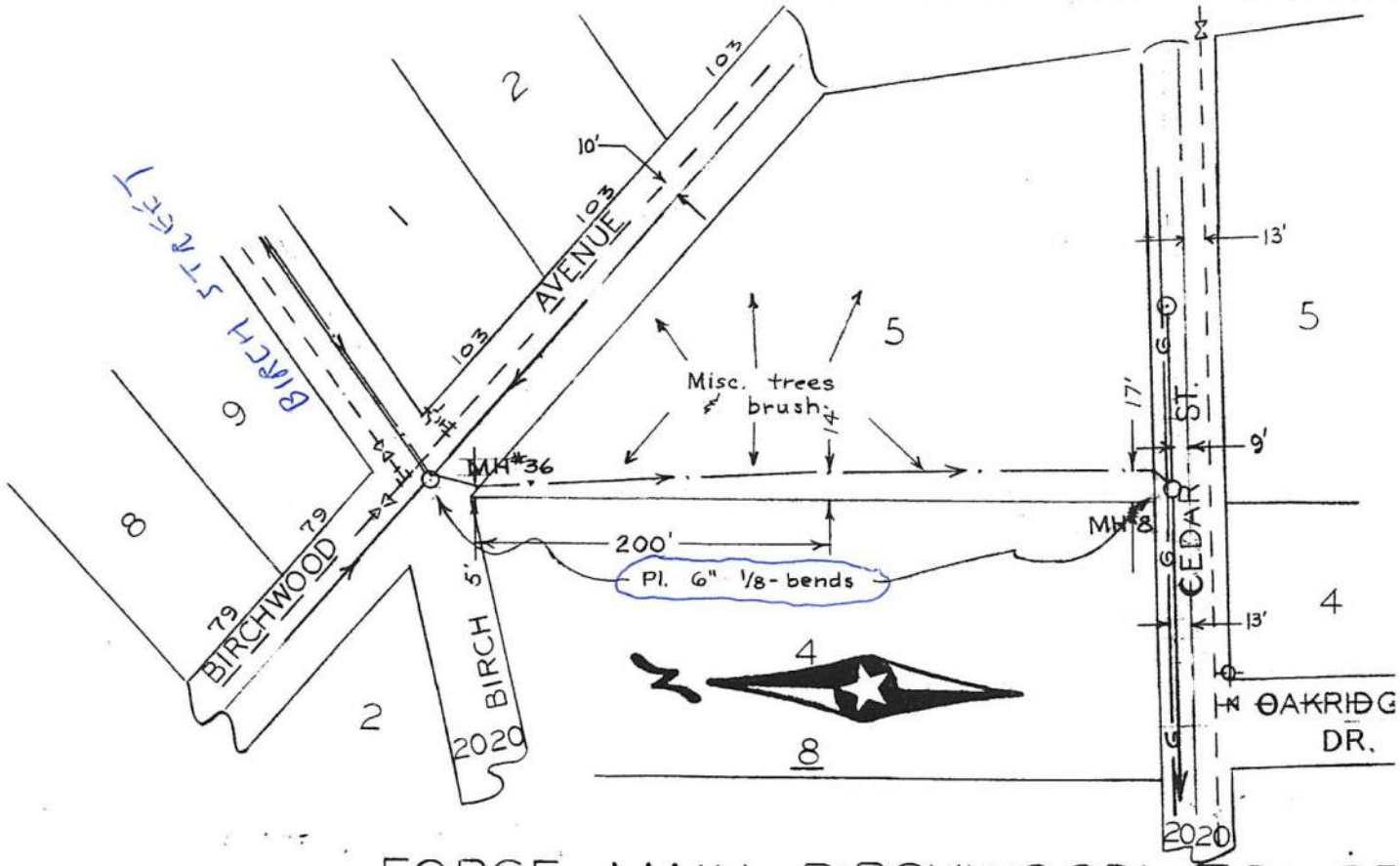
3/7


Force Main – in trench with 9" VCP sewer.
2
BIRCHWOOD AVE.
25
25
BIRCH STREET
9
5+13
3+77
17
18
19
2407
293.48
300.9
MH 36
MH 35
MH 35A
MH 34
291.24
294.9
146
146
5+01
100
103
10'
varies
Pl(2) 6" 1/8 - bend
Boring #8 - 1963
Misc. trees & brush
3
8


BIRCH ST.
B.M.-988.69
M.H.#36
Top hyd., Birch & Birchwood
986.03
735'-6" CIP Force Main, 6' min. cover, laid with 9" VCP
60'-9" VCP @ 5.00%
MH#34
948.60
MH#35A
969.48
MH#35
967.48
294.9'-9" VCP @ 4.34%
275'-9" VCP @ 5.10%
90'-9" VCP @ 22.00%
rock
Match Line
Boring #8-1963
967.9
980
970
960
950
7
6
5
4
3
2
+25
960.68
+65
956.96
+75
937.81
MH#16A
4/7

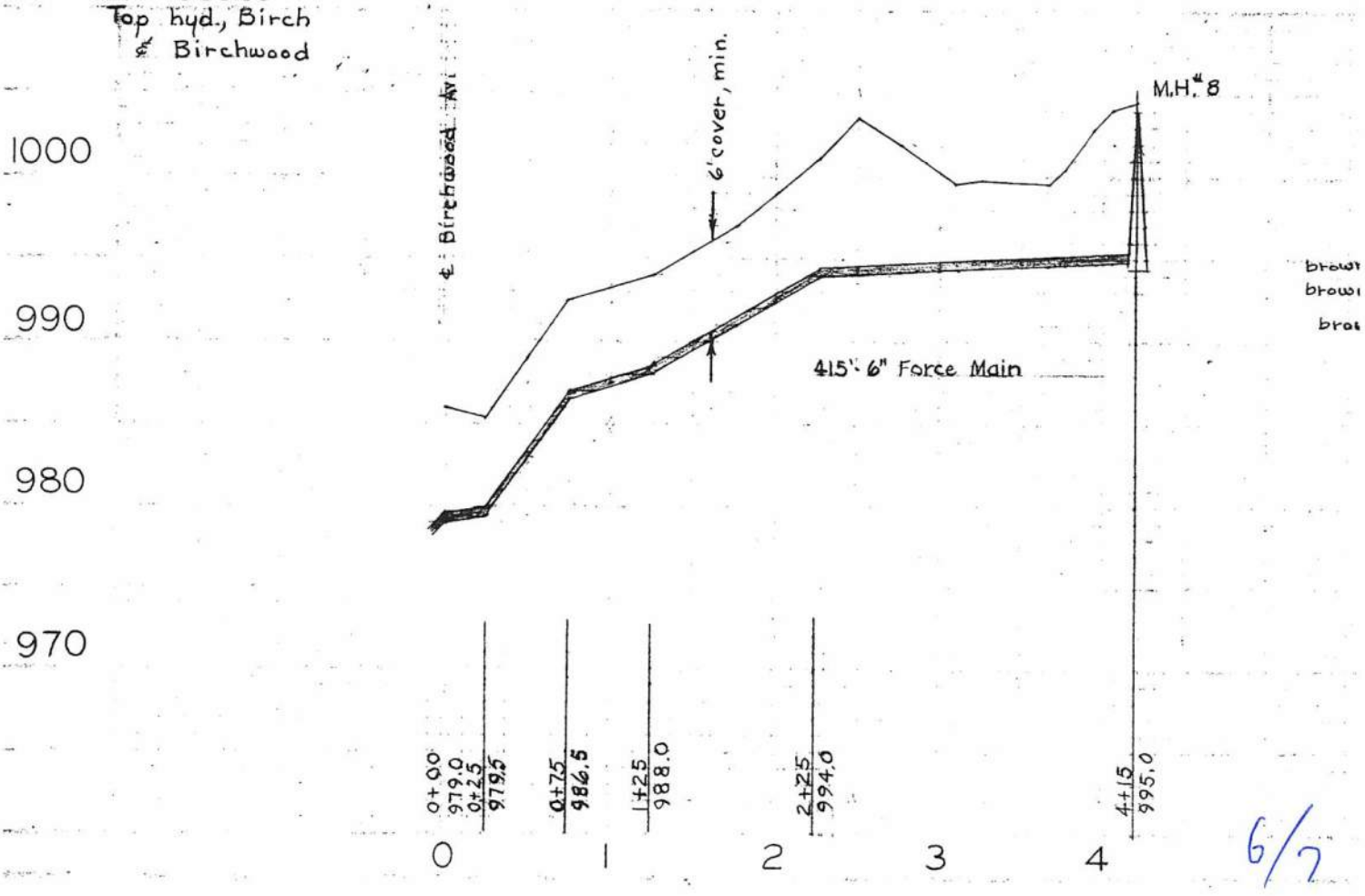

9
8
6+86
7+94
99
MH 78
120
13
12
N
Force Main – in tr
9" VCP sewer.
2
25
25
BIRCHWOOD
67
9
5+13
BIRCH
STREET
300.9
9"
MH 36
20
20
294.9
146
5+01
P1(2) 6" 1/8 - bend
AVE.
103
Varies
10'
25
25
BM – 948.82
Top hyd., 600' SE of
Jay on Birchwood
950
980
M.H. # 78
941.96
940
970
Boring # 8 - 1963
967.9
fill, brown loamy sand & sandy loam
grayish brown clay loam
brown sandy clay loam
brown sandy loam, limestone pieces, boulders
930
960
brown sandy loam, gravel, boulders
brown fine sand, gravel
brown sandy loam, gravel
0.40 %
920
950
+00
935.21
BM – 988.69
Top hyd, Birch
& Birchwood
M.H. # 36
986.03
735' – 6
6" a
with
294.9' 9" VCP @ 4.5%
E. Birchwood Ave.
973.97
7
8
7
6
5

5/7

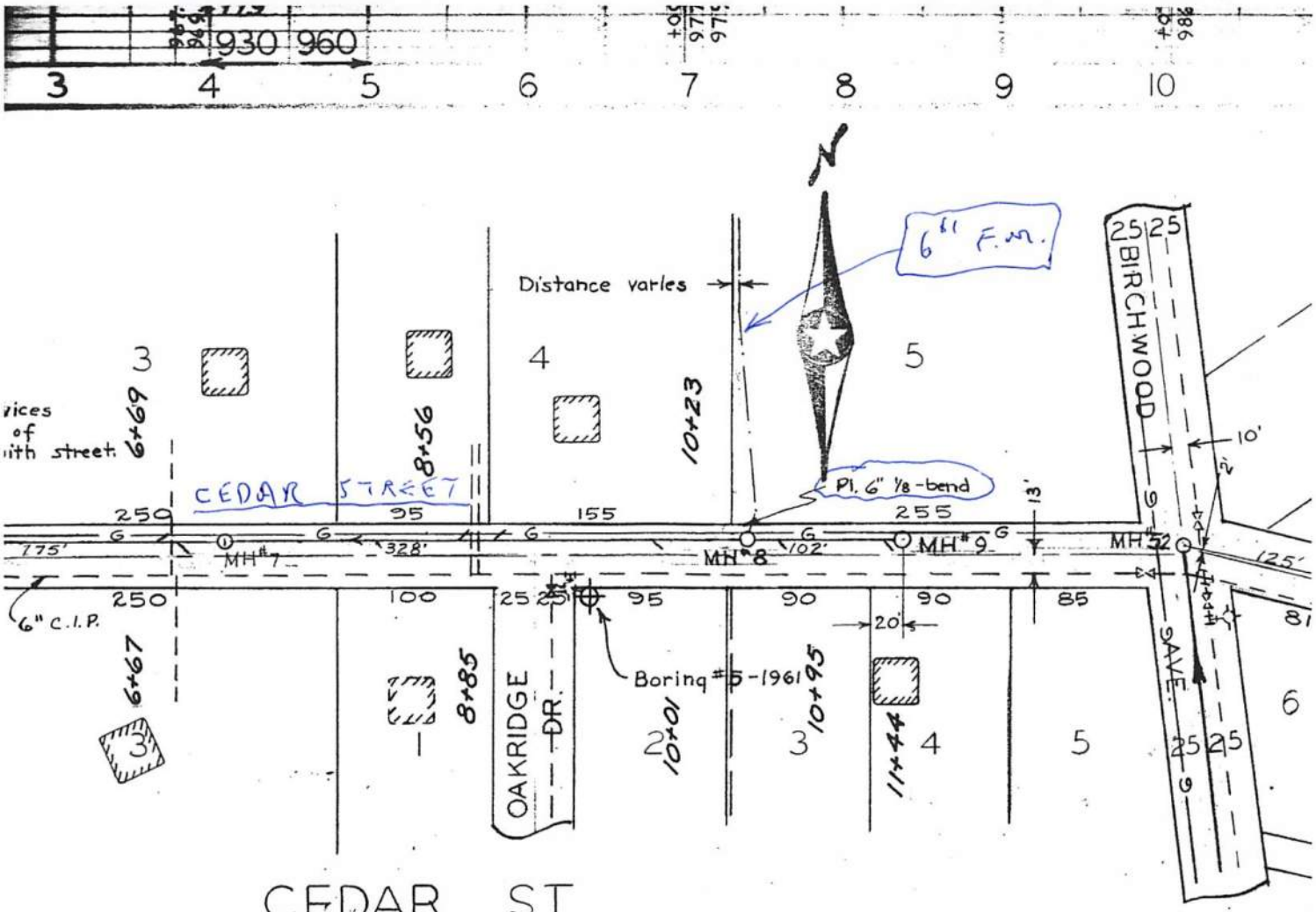


FORCE-MAIN BIRCHWOOD TO CE

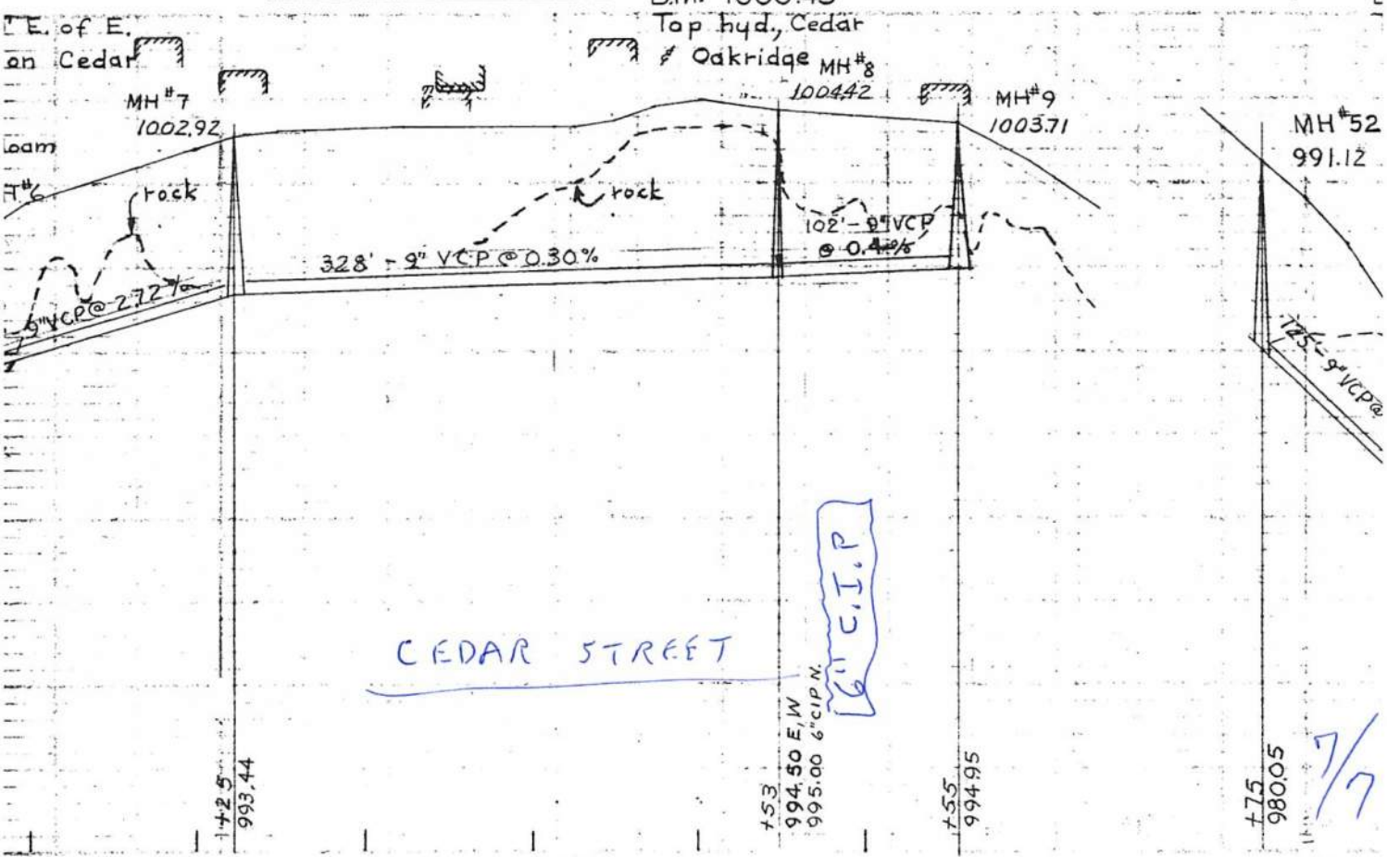
B.M.-988.69
Top hyd., Birch
& Birchwood



6/7


930 960
3
4
5
6
7
8
9
10
N
6" F.M.
Distance varies
BIRCHWOOD
CEDAR STREET
Pl. 6" 1/8-bend
MH#7
MH#8
MH#9
MH#52
6" C.I.P.
OAKRIDGE DR.
Boring #5-1961
SAVE
6+69
8+56
10+23
6+67
8+85
10+01
10+95
11+44
250
95
155
255
175'
328'
102'
125'
100
90
85
20'
13'
10'
2'

CEDAR ST.


B.M.-1006.45
Top hyd., Cedar & Oakridge
MH#7
1002.92
MH#8
1004.42
MH#9
1003.71
MH#52
991.12
rock
rock
6" VCP @ 2.72%
328' - 9" VCP @ 0.30%
102' - 9" VCP @ 0.4%
CEDAR STREET
6" C.I.P.
994.50 E, W
995.00 6" CIP N.
993.44
994.95
98005
+42.5
+53
+55
+75

7/7