ORAL ARGUMENT NOT YET SCHEDULED

No. 12-1100 (and consolidated cases)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

WHITE STALLION ENERGY CENTER, LLC, et al.,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

On Petition for Review of Final Agency Action
77 FR 9304 (Feb. 16, 2012)

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Circuit Rule 28(a)(1), State, Industry, and Labor Petitioners state as follows:

A. Parties, Intervenors, and *Amici*

Petitioners:

Case No. 12-1100: White Stallion Energy Center, LLC

Case No. 12-1101: National Mining Association

Case No. 12-1102: National Black Chamber of Commerce and Institute for Liberty

Case No. 12-1147: Utility Air Regulatory Group

Case No. 12-1170: Eco Power Solutions (USA) Corporation ("Eco Power"). On October 10, 2012, Eco Power filed a motion for voluntary dismissal.

Case No. 12-1172: Midwest Ozone Group

Case No. 12-1173: American Public Power Association

Case No. 12-1174: Julander Energy Company

Case No. 12-1175: Peabody Energy Corporation

Case No. 12-1176: Deseret Power Electric Cooperative

Case No. 12-1177: Sunflower Electric Power Corporation

Case No. 12-1178: Tri-State Generation and Transmission Association, Inc.

Case No. 12-1180: Tenaska Trailblazer Partners, LLC

Case No. 12-1181: ARIPPA

Case No. 12-1182: West Virginia Chamber of Commerce Incorporated; Georgia Association of Manufacturers, Inc.; Indiana Chamber of Commerce, Inc.; Indiana Coal Council, Inc.; Kentucky Chamber of Commerce, Inc.; Kentucky Coal Association, Inc.; North Carolina Chamber; Ohio Chamber of Commerce; Pennsylvania Coal Association; South Carolina Chamber of Commerce; The Virginia Chamber of Commerce; The Virginia Coal Association, Incorporated; West Virginia Coal Association, Inc.; and Wisconsin Industrial Energy Group, Inc.

Case No. 12-1183: United Mine Workers of America

Case No. 12-1184: Power4Georgians, LLC

Case No. 12-1185: State of Texas, Texas Commission on Environmental Quality, Texas Public Utility Commission, and Railroad Commission of Texas

Case No. 12-1186: The Kansas City Board of Public Utilities – Unified Government of Wyandotte County/Kansas City, Kansas

Case No. 12-1187: Oak Grove Management Company LLC

Case No. 12-1188: Gulf Coast Lignite Coalition

Case No. 12-1189: Puerto Rico Electric Power Authority

Case No. 12-1190: State of Arkansas, *ex rel*. Dustin McDaniel, Attorney General

Case No. 12-1191: Chase Power Development, LLC

Case No. 12-1192: FirstEnergy Generation Corp.

Case No. 12-1193: Edgecombe Genco, LLC; Spruance Genco, LLC

Case No. 12-1194: Chesapeake Climate Action Network, Conservation Law Foundation, Environmental Integrity Project, and Sierra Club

Case No. 12-1195: Wolverine Power Supply Cooperative, Inc.

Case No. 12-1196: States of Michigan, Alabama, Alaska, Arizona, Florida, Idaho, Indiana, Kansas, Mississippi, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Carolina, Utah, West Virginia, Wyoming; Commonwealths of Pennsylvania and Virginia; Terry E. Branstad, Governor of the State of Iowa, on behalf of the People of Iowa; and Jack Conway, Attorney General of Kentucky

Respondent:

The U.S. Environmental Protection Agency is the Respondent in all of these cases.

Lisa P. Jackson, Administrator, U.S. Environmental Protection Agency, is also named as a Respondent in Nos. 12-1174, 12-1189, and 12-1191.

Intervenors:

The Commonwealth of Massachusetts and the States of Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, New Hampshire, New Mexico, New York, Rhode Island, Vermont and the District of Columbia and the City of New York are intervenor-respondents in No. 12-1100.

The American Academy of Pediatrics, American Lung Association, American Nurses Association, American Public Health Association, Chesapeake Bay Foundation, Citizens for Pennsylvania's Future, Clean Air Council, Conservation Law Foundation, Environment America, Environmental Defense Fund, Izaak Walton League of America, Natural Resources Council of Maine, Natural Resources Defense Council, Ohio Environmental Council, Physicians for Social Responsibility, Sierra Club, and Waterkeeper Alliance are intervenor-respondents in No. 12-1100.

Calpine Corporation, Exelon Corporation, and Public Service Enterprise Group, Inc. are intervenor-respondents in No. 12-1100.

The State of North Carolina is an intervenor-respondent in No. 12-1147.

National Grid Generation LLC is an intervenor-respondent in No. 12-1147.

Utility Air Regulatory Group and Oak Grove Management Company LLC are movant intervenor-respondents in Nos. 12-1170, 12-1174, and 12-1194.

White Stallion Energy Center, LLC; Deseret Power Electric Cooperative; Sunflower Electric Power Corporation; Tri-State Generation and Transmission Association, Inc.; Tenaska Trailblazer Partners, LLC; and Power4Georgians, LLC are intervenor-respondents in No. 12-1174.

Eco Power Solutions (USA) Corporation is an intervenor-respondent in No. 12-1194.

National Black Chamber of Commerce and Institute for Liberty are intervenor-respondents in No. 12-1194.

Peabody Energy Corporation is an intervenor-respondent in Nos. 12-1174 and 12-1194.

National Mining Association is an intervenor-respondent in Nos. 12-1174 and 12-1194.

Sunflower Electric Power Corporation is an intervenor-respondent in No. 12-1194.

Gulf Coast Lignite Coalition and Lignite Energy Council are intervenor-respondents in No. 12-1194.

The States of California, Minnesota and Oregon, the County of Erie in the State of New York, the City of Baltimore in the State of Maryland, and the City of Chicago in the State of Illinois are intervenor-respondents in No. 12-1100.

The National Association for the Advancement of Colored People are intervenor-respondents in No. 12-1100.

White Stallion Energy Center, LLC is an intervenor-respondent in No. 12-1194.

Chase Power Development, LLC is an intervenor-respondent in No. 12-1194.

***Amici*:**

The Institute for Policy Integrity at New York University School of Law is an *amicus curiae* in support of respondent in No. 12-1100.

The Chamber of Commerce of the United States of America is a movant *amicus curiae* in No. 12-1100.

B. Rulings Under Review

These petitions challenge EPA's final rule, "National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units," 77 FR 9304 (Feb. 16, 2012).

C. Related Cases

Each of the petitions for review consolidated under No. 12-1100 is related. These cases consist of Case Nos. 12-1101, 12-1102, 12-1147, 12-1172, 12-1173, 12-1175, 12-1176, 12-1177, 12-1178, 12-1180, 12-1181, 12-1182, 12-1183, 12-1184, 12-1185, 12-1186, 12-1187, 12-1188, 12-1189, 12-1190, 12-1191, 12-1192, 12-1193, 12-1195, and 12-1196. The consolidated cases on review have not previously been reviewed by this or any other Court.

Case No. 12-1272—which focuses on two issues of the rule involving new units—was severed from the cases consolidated under Case No. 12-1100 on June 28, 2012. *See* Order Severing New Source Issues (Doc. No. 1381112). Briefing in

that case is currently being held in abeyance pending administrative reconsideration proceedings. *See* Order Holding Case in Abeyance (Doc. No. 1394140).

Case No. 12-1166, which challenges the New Source Performance Standards ("NSPS") issued in the same *Federal Register* notice as the rule under review in this case, was deconsolidated from Case No. 12-1100 on August 24, 2012. *See* Order Deconsolidating NSPS Issues (Doc. No. 1391295). Additionally, the NSPS issues in Case Nos. 12-1170 and 12-1185 were severed and assigned to a new docket, Case No. 12-1366, and consolidated with Case No. 12-1166. *Id.*

CORPORATE DISCLOSURE STATEMENTS

Industry and Labor Petitioners submit the following statements pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Circuit Rule 26.1:

American Public Power Association ("APPA") is a nonprofit trade association, as defined under Circuit Rule 26.1(b), whose members are units of state and local governments that own and operate electric generating, distribution and transmission assets. APPA addresses issues of interest to its members, including those issues related to the development and implementation of requirements under federal and state Clean Air Act programs. APPA does not have any outstanding securities in the hands of the public, nor does APPA have a publicly owned parent, subsidiary, or affiliate.

ARIPPA is a non-profit trade association that represents a membership primarily comprised of electric generating plants using environmentally-friendly circulating fluidized bed ("CFB") boiler technology to convert coal refuse and/or other alternative fuels such as biomass into alternative energy and/or steam, with the resultant alkaline ash used to reclaim mine lands. ARIPPA was organized in 1988 for the purpose of promoting the professional, legislative and technical interests of its member facilities. ARIPPA has no outstanding shares or debt securities in the hands of the public and does not have any parent, subsidiary, or affiliate that has issued shares or debt securities to the public.

Chase Power Development, LLC is a Texas limited liability company engaged in the development of electrical power generation facilities in Texas. Chase Power Development, LLC has no parent companies. Furthermore, no publicly held corporation has a 10 percent or greater ownership interest in Chase Power Development, LLC.

Edgecombe Genco, LLC ("Edgecombe") is a cogeneration facility that sells power by contract and produces steam for a steam host. No publicly held corporation owns any stock in Edgecombe. Edgecombe has issued no stock. Edgecombe is wholly-owned by Calypso Energy Holdings, LLC, which has issued no stock.

FirstEnergy Generation Corporation is a wholly-owned subsidiary of FirstEnergy Solutions Corp. FirstEnergy Solutions Corp. is a wholly-owned

subsidiary of FirstEnergy Corp., a diversified energy company whose ten electric utility operating companies comprise one of the nation's largest investor-owned electric systems, serving customers in Maryland, New Jersey, Ohio, Pennsylvania, Virginia, and West Virginia. FirstEnergy Corp. is a publicly-held corporation incorporated under the laws of Ohio. No company owns more than 10 percent of the stock of FirstEnergy Corp.

Georgia Association of Manufacturers, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Indiana Chamber of Commerce, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Indiana Coal Council, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Institute for Liberty ("IFL") is a non-profit and nonpartisan organization dedicated to defending the rights of individuals and businesses against undue encroachments by government that impair economic and civil liberties. It produces academic research on health, economic, and regulatory policy and, through its Center for American Regulatory Engagement, helps ordinary Americans participate in the regulatory process to ensure that their views are represented. IFL has no parent company, subsidiary, or affiliate that has issued shares or debt securities to the public.

The Kansas City Board of Public Utilities-Unified Government Wyandotte County/Kansas City, Kansas is not required to provide a Corporate Disclosure Statement pursuant to Federal Rule of Appellate Procedure 26.1 because it is a governmental entity organized under the laws of the State of Kansas. Accordingly, no Corporate Disclosure Statement has been provided.

Kentucky Chamber of Commerce, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Kentucky Coal Association, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Midwest Ozone Group is an unincorporated association of businesses and organizations formed to assist in the development of scientifically sound and effective ozone strategies. Because it is a continuing association of numerous businesses and organizations operated for the purpose of promoting the general commercial and legislative interests of its membership, no listing of its members that have issued shares or debt securities to the public is required under Circuit Rule 26.1(b).

National Black Chamber of Commerce ("NBCC") is a non-profit, nonpartisan, nonsectarian organization dedicated to the economic empowerment of African American communities through entrepreneurship. Incorporated in 1993, it represents nearly 100,000 African American-owned businesses, and advocates on behalf of the one million Black-owned businesses in the United States. The Chamber has 190 affiliated chapters located throughout the nation. Members of the NBCC include companies that are substantial consumers of electricity and whose economic viability depends on affordable electric service. NBCC has no parent company, subsidiary, or affiliate that has issued shares or debt securities to the public.

National Mining Association ("NMA") is a non-profit, incorporated national trade association whose members include the producers of most of America's coal, metals, and industrial and agricultural minerals; manufacturers of mining and mineral processing machinery, equipment, and supplies; and engineering and consulting firms that serve the mining industry. NMA has no parent companies, subsidiaries, or affiliates that have issued shares or debt securities to the public, although NMA's individual members have done so.

North Carolina Chamber is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Ohio Chamber of Commerce is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Peabody Energy Corporation is a publicly-traded company on the New York Stock Exchange ("NYSE") under the symbol "BTU." No public corporation owns more than 10% of Peabody's stock, with the exception of BlackRock, Inc. (NYSE: BLK), a publicly-held corporation which reported that as of December 31, 2011, it owned approximately 11.1% of Peabody's outstanding common stock. Peabody owns and operates several coal mines across the United States, and its coal production fuels approximately 10% of the nation's power generation.

Pennsylvania Coal Association is an unincorporated trade association organized and existing under the laws of the Commonwealth of Pennsylvania. Because it is a continuing association of numerous businesses and organizations operated for the purpose of promoting the general commercial, professional, legislative, and other interests of its membership, no listing of its members that have issued shares or debt securities to the public is required under Circuit Rule 26.1(b).

South Carolina Chamber of Commerce is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Spruance Genco, LLC ("Spruance") is a cogeneration facility that sells power by contract and produces steam for a steam host. No publicly held corporation owns any stock in Spruance. Spruance has issued no stock. Spruance is wholly-owned by Calypso Energy Holdings, LLC, which has issued no stock.

Tri-State Generation & Transmission Association, Inc. ("Tri-State") is a wholesale electric power supply cooperative which operates on a not-for-profit basis and is owned by 1.5 million member-owners and 44 distribution cooperatives. Tri-State issues no stock and has no parent corporation. Accordingly, no publicly held corporation owns 10% or more of its stock.

United Mine Workers of America ("UMWA") is a non-profit national labor organization with headquarters in Triangle, Virginia. Its members are active and retired miners engaged in the extraction of coal and other minerals in the United States and Canada, and workers in other industries in the United States organized by the UMWA. It provides collective bargaining representation and other membership services on behalf of its members. UMWA is affiliated with the American Federation of Labor-Congress of Industrial Organizations, and has no parent companies, subsidiaries, or affiliates that have issued shares or debt securities to the public.

Utility Air Regulatory Group ("UARG") is a not-for-profit association of individual electric generating companies and national trade associations that participates on behalf of its members collectively in administrative proceedings under the Clean Air Act, and in litigation arising from those proceedings, that affect electric generators. UARG has no outstanding shares or debt securities in the hands of the public and has no parent company. No publicly held company has a 10% or greater ownership interest in UARG.

The Virginia Chamber of Commerce is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

The Virginia Coal Association, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

West Virginia Chamber of Commerce is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

West Virginia Coal Association, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

White Stallion Energy Center, LLC ("White Stallion") is a limited liability company organized under the laws of the State of Texas engaged in the business of energy development and production. White Stallion has no parent companies, and no publicly-held corporation has a 10% or greater ownership interest in it.

Wisconsin Industrial Energy Group, Inc. is a not for profit corporation. It has no parent companies, subsidiaries or affiliates that have issued shares or debt securities to the public.

Wolverine Power Supply Cooperative, Inc. ("Wolverine") is a not-for-profit, member-owned, electric generation and transmission cooperative headquartered in Cadillac, Michigan. Wolverine has no parent company, and no publicly-held company has a 10% or greater ownership interest in Wolverine.

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FEDERAL CASES

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* Authorities upon which we chiefly rely are marked with asterisks.

FEDERAL STATUTES

Clean Air Act, 42 U.S.C. §§ 7401 *et seq*.

LEGISLATIVE HISTORY

FEDERAL REGULATIONS

FEDERAL REGISTER

MISCELLANEOUS

GLOSSARY OF TERMS

ACI	Activated Carbon Injection
Act	Clean Air Act
Agency	U.S. Environmental Protection Agency
BTU	British Thermal Unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CAMR	Clean Air Mercury Rule
DSI	Dry Sorbent Injection
EGUs	Electric Utility Steam Generating Units
EPA	U.S. Environmental Protection Agency
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
HCl	Hydrogen Chloride
HF	Hydrogen Fluoride
Hg	Mercury
ICR	Information Collection Request
JA	Joint Appendix
MACT	Maximum Achievable Control Technology
MATS	Mercury Air Toxics Standards

NAS	National Academy of Sciences
Ni	Nickel
OMB	Office of Management and Budget
RfC	Reference Concentration
RfD	Reference Dose
RIA	Regulatory Impact Analysis
RTC	Response to Comments
SAB	Science Advisory Board
tpy	tons per year
TSD	Technical Support Document
UARG	Utility Air Regulatory Group

PERTINENT STATUTES AND REGULATIONS

Clean Air Act ("CAA" or "Act") §§112 and 307, 42 U.S.C. §§7412, 7607, [1] as well as relevant regulations, are reproduced in the attached Statutory and Regulatory Addendum.

STATEMENT OF JURISDICTION

The U.S. Environmental Protection Agency ("EPA" or "Agency") published the "National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units," on February 16, 2012 ("MATS rule"). 77 FR 9304 (Joint Appendix ("JA")__). The consolidated petitions for review were filed on or before April 16, 2012. This Court has jurisdiction under CAA §307(b)(1).

ISSUES PRESENTED FOR REVIEW

1. Whether the MATS rule must be vacated because the 2000 "appropriate and necessary" finding and source category listing based on that finding of coal- and oil-fired electric utility steam generating units ("EGUs") are unlawful.
2. Whether EPA's §112(n)(1)(A) "appropriate and necessary" finding relies on statutory interpretations that are contrary to law and unreasonable.

[1] Hereinafter only the CAA citation will be provided. The Table of Authorities provides parallel citations to the U.S. Code.

3. Whether EPA unlawfully failed to consider relevant statutory criteria, including regulatory costs, in making its "appropriate and necessary" finding.
4. Whether the record fails to support EPA's §112(n)(1)(A) findings for emissions of mercury ("Hg"), other hazardous air pollutant ("HAP") metals, and acid gas HAPs.
5. Assuming *arguendo* EPA's §112(n)(1)(A) findings were lawful and had record support, whether EPA violated the CAA in promulgating §112(d) standards by:
    a. Not separately listing and regulating "major sources" and "area sources";
    b. Using a flawed methodology to set the existing source mercury standard for EGUs burning high-British thermal unit ("BTU") coal; and
    c. Refusing to promulgate alternative health-based limits under §112(d)(4).
6. Whether the work practice standards and associated definitions for startup and shutdown are arbitrary and capricious, and were promulgated in violation of §307(d)'s rulemaking requirements.

7. Whether EPA's summary denial of the Utility Air Regulatory Group's ("UARG") §112(c)(9) delisting request was arbitrary and capricious and contrary to law.

INTRODUCTION

CAA §112 treats EGUs differently from other sources of HAP emissions. Historically, EPA recognized that there is little risk associated with HAP emissions from EGUs, particularly in light of other CAA programs that effectively control these emissions. Accordingly, Congress provided in §112(n)(1)(A) that EGUs are to be regulated under §112 only if, and to the extent that, EPA determines that EGU HAP emissions cause hazards to public health and that it is "appropriate and necessary" to regulate such emissions under §112.

In 2005, EPA determined after extensive rulemaking that EGU HAP emissions do not cause hazards to public health and, therefore, that §112 regulation of EGU HAP emissions was neither appropriate nor necessary. Now, EPA would reverse that rulemaking determination and the statutory interpretations on which it was based, in order to regulate EGU emissions that, by EPA's own analyses, pose no public health hazard. EPA's new interpretations effectively deprive §112(n)(1)(A) of its meaning. EPA does this at an enormous cost to society by embracing the unnecessary type of EGU HAP regulation Congress sought to avoid, imposing annual compliance costs of $9.6 *billion* while producing a mere $4-5

million in benefits from HAP reductions. The resulting regulatory program is not "appropriate and necessary" and should be vacated.

STATEMENT OF THE CASE

In 1990, Congress directed that, when it comes to regulating HAPs, EGUs should be treated differently than all other sources. For most sources, Congress provided a rote formula: §112 regulation begins with categorizing sources, followed by rulemakings to set technology-based standards, and then follow-up rulemakings to address residual risks.

For EGUs, §112 regulation is not rote. Regulation depends on whether additional reductions in HAP emissions are warranted given the substantial HAPs reductions resulting from other CAA requirements. For example, scrubbers installed to meet Acid Rain Program requirements are highly effective in reducing HAP emissions. Congress therefore directed EPA to determine whether remaining EGU HAP emissions pose a hazard to public health, study the efficacy and costs of further emission control for EGUs, and then decide, under CAA §112(n)(1)(A), whether and to what extent further regulation of EGU HAP emissions under §112 is "appropriate and necessary."

I. THE CLEAN AIR ACT

Section 112, as enacted in 1970, Pub. L. No. 91-604, 84 Stat. 1676, 1685 (1970), required EPA to determine whether sources within an industrial category

released any HAP in amounts that were reasonably anticipated to result in "an increase in mortality or an increase in serious…illness," and was to regulate those HAPs as necessary to protect public health with an "ample margin of safety." CAA §112(a)(1) (1970). Under this provision, EPA regulated HAPs emitted from industrial source categories other than EGUs. *See* 40 C.F.R. Part 61.

EGU HAP emissions are produced by the combustion of fossil fuels. These emissions are largely removed from the gas stream by control equipment installed to satisfy other CAA requirements. Under the 1970 and 1977 Acts, EPA investigated the need to regulate EGU HAP emissions, but never found such emissions posed unacceptable risk. For example, EPA found in 1975 and again in 1987 that "coal-fired power plants…do not emit mercury in such quantities that they are likely to cause the ambient mercury concentration to exceed" a level needed to "protect the public health with an ample margin of safety." 40 FR 48292, 48297/2, 48298/1-2 (Oct. 14, 1975) (JA__); 52 FR 8724, 8725/3 (Mar. 19, 1987) (reaffirming mercury conclusion) (JA__); *see also* 48 FR 15076, 15085/3 (Apr. 6, 1983) (finding radionuclides from EGUs do not pose hazards to public health) (JA__).[2]

[2] EPA also set HAP standards for inorganic arsenic emissions without even mentioning EGUs, presumably because those sources did not release arsenic at levels that "result in significant risks." *See generally* 48 FR 33112, 33116/1 (July 20, 1983).

In 1990, Congress concluded that this risk-based approach to HAP regulation was too time-consuming and cumbersome to implement. *See* S. Rep. No. 101-228, at 131-33 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3516-18 (JA__). To solve this problem, Congress designated 189 HAPs under §112(b) and instructed EPA in §112(c) to list categories of "major" stationary sources of HAPs based on the amount emitted (10/25 tons). Listing triggered an obligation to establish technology-based emission standards under §112(d). These maximum achievable control technology ("MACT") standards are based on the emissions reduction achieved in practice by the best controlled similar sources. EPA is also authorized to list and regulate non-major (i.e., "area") sources separately under §112(c) and (d).

By contrast, Congress provided in §112(n)(1)(A) that EGUs be treated differently. In S.1630, which the Senate passed on April 3, 1990, EGUs were to be listed under §112(c) and regulated under §112(d), like every other source category.[3] When the House later passed a modified version of S.1630, it substantially changed the provisions governing EGUs, removing the requirement to list under §112(c) and regulate under §112(d). The House-passed provision,

[3] *See* S.1630, §301 (1990), *reprinted in* 3 A Legislative History of the Clean Air Act Amendments of 1990 at 4119, 4407, 4418-28 (1998) ("1990 Legis. Hist.") (JA__, __, __-__).

which was virtually identical to the current §112(n)(1)(A),[4] was adopted by the Conference Committee and became law.[5]

Under §112(n)(1)(A), EPA must complete "a study *of the hazards to public health reasonably anticipated to occur as a result of [EGU HAP] emissions*" that remain after "*imposition of the requirements of this [Act]*." *Id.* (emphases added). As part of that evaluation, EPA must "develop and describe . . . *alternative control strategies* for [any HAP] emissions which *may warrant* regulation under this section." *Id.* (emphases added). EGU HAP emissions can be regulated only to the extent that it is "*appropriate and necessary after considering the results of the study*." *Id.* (emphasis added). Section 307(d)(1)(C) provides that the CAA's notice-and-comment rulemaking requirements "appl[y] to…any regulation under section [112]…(n)."

II. HAPS EMITTED BY EGUS

Most HAP emissions from EGUs result from chemical elements that are naturally present in trace amounts in the fuels they burn.

A. Mercury

Mercury enters the environment through both natural processes, such as volcanic eruptions, evaporation of oceans, and forest fires, and human activities such as gold mining, municipal waste incineration, fossil fuel combustion, and

[4] 2 1990 Legis. Hist. at 2148-49 (JA__-__).
[5] 1 1990 Legis. Hist. at 572-73 (JA__-__).

chlorine manufacturing. Mercury is a global pollutant, meaning that a substantial percentage of mercury emissions circulates in the atmosphere for months before depositing on soil or in water.[6]

EPA has estimated that total global emissions of mercury are about 5,000 tons per year: 1,000 tons from natural sources, 2,000 tons from manmade sources, and 2,000 tons from reemission of previously deposited mercury into the ambient air.[7] EPA's 1998 Utility Study estimated that U.S. coal-fired EGUs emitted about 51.5 tons of mercury annually, or about 1% of the 5,000 tons of worldwide mercury emissions.[8] By 2010, those mercury emissions were reduced to 29 tons per year ("tpy").[9]

Humans are primarily exposed to mercury through consumption of fish containing methylmercury. 69 FR at 4658/1 (JA__). EGUs do *not* produce or emit methylmercury. Methylmercury is formed by microbes in the sediments of waterbodies, where it eventually works its way up the food chain to fish. Only a small fraction of the nine tons of domestic EGU mercury emissions deposited in

[6] EPA, Study of HAP Emissions from EGUs—Final Report to Congress, Vol. 1 at 7-7 (Feb. 1998), EPA-HQ-OAR-2009-0234-3052 ("Utility Study") (JA__).

[7] 69 FR 4652, 4658/2-3 (Jan. 30, 2004) (JA__).

[8] Utility Study at 7-8, Table 7-1 (JA__).

[9] 76 FR 24976, 25002/2 (May 3, 2011) (JA__). This more recent estimate reflects implementation of other CAA requirements.

the U.S.[10] actually enters waterbodies, only a very small fraction of that deposition is biologically transformed into methylmercury, and only a small fraction of that methylmercury end up in fish that people eat. As a result, human exposure to methylmercury resulting from coal-fired EGUs is exceedingly small. 70 FR 15994, 16019-20 (Mar. 29, 2005) (JA__-___).

B. Non-Mercury Metal HAPs

Trace amounts of non-mercury metal HAPs—such as arsenic, chromium, and nickel—are naturally present in coal and oil. When these fuels are burned, metals adhere to the ash, becoming part of particulate matter. Virtually all of the particulate matter produced by EGUs is captured by high-efficiency control devices.

In the Utility Study, EPA performed a conservative, "high-end" estimate of the inhalation risks posed by non-mercury metal emissions from all U.S. coal-fired EGUs. Those analyses showed that only two coal-fired facilities had cumulative risks from carcinogens of greater than one-in-one million from HAP metals. The highest facility had a risk of three-in-one million. Utility Study at 6-3, Table 6-1 (JA__). For non-carcinogen emissions, EPA found that exposure levels were far below the reference concentration ("RfC"). In December 2009, EPRI modeled

[10] About 30% of U.S. EGU mercury emissions deposit within the continental United States. *See* EPRI, Comments on 2004 Proposed Rule at 2 (June 16, 2004), EPA-HQ-OAR-2002-0056-2578.

every coal-fired facility and confirmed that none posed a carcinogenic risk greater than one-in-one million.[11]

C. Acid Gas HAPs

EGUs emit two acid gas HAPs: hydrogen chloride ("HCl") and hydrogen fluoride ("HF"). During the combustion process, trace amounts of chlorine and fluorine found in coal and oil combine with hydrogen to form HCl and HF. HCl and HF are non-carcinogens, and EPA's modeling has consistently shown that exposure of the maximum exposed individual to acid gas HAPs emitted by EGUs is an order of magnitude or more below the health-protective thresholds for those HAPs.[12]

D. Organic HAPs and Dioxin

Coal and oil are mostly made up of "organic" compounds—i.e., molecules comprised mostly of carbon and hydrogen. These organics release a significant amount of energy when combusted and are the reason coal and oil are used as fuels. Organic HAPs can be emitted by EGUs as a result of incomplete

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[11] EPRI, Comments on Proposed HAPs MACT Rule at 3-22 to 3-24 (Aug. 4, 2011), EPA-HQ-OAR-2009-0234-17621 ("EPRI MATS Rule Comments") (JA__-__). EPA recently conducted inhalation modeling that found five coal-fired facilities posed risks slightly greater than one-in-one million. As described in detail below, EPA's recent modeling used contaminated emissions data. *See infra* Argument I.C.2.

[12] *See* Utility Study at 6-7 (JA__); 76 FR at 25051/2 ("Our case study analyses of the chronic impacts of EGUs did not indicate any significant potential for them to cause any exceedances of the chronic RfC for HCl….") (JA__).

combustion. Testing for organic HAPs and dioxins required by EPA in 2010 reported a large majority of non-detect values, meaning that these compounds are present in amounts too small to detect, if at all.[13]

III. EPA'S §112 RULEMAKING

A. The Utility Study

After enactment of the 1990 CAA, EPA began updating information on the types and amounts of HAPs emitted by EGUs. EPA also collected information on the health effects of those HAPs, and conducted modeling to determine how those emissions may affect public health. The products of these efforts were reported in the Mercury Study (December 1997)[14] and the Utility Study (February 1998). The Utility Study did not contain a §112(n)(1)(A) "appropriate and necessary" determination. Utility Study, at ES-1 (JA__). Instead, EPA stated that it "believes that mercury from coal-fired utilities is the HAP of greatest potential concern" and that "[f]urther research and evaluation are needed to gain a better understanding of the risks and impacts of utility mercury emissions." *Id.* at ES-27 (JA__). For three other HAPs, EPA noted "potential concerns and uncertainties that may need further study."[15]

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[13] *See* 76 FR at 25040/1-2 (JA__).

[14] EPA, Mercury Study Report to Congress, Vol. 1 (Dec. 1997), EPA-HQ-OAR-2009-0234-3054 ("Mercury Study") (JA__).

[15] *Id.* For dioxin and arsenic emissions from coal-fired EGUs, EPA noted that screening studies "suggest…potential concern" but further evaluations were

After issuing the Utility Study, EPA undertook several efforts to advance its understanding of mercury health effects and of the quantity and form of mercury emissions from coal-fired EGUs.[16] EPA asked the National Academy of Sciences ("NAS") to review the toxicological effects of methylmercury and to recommend an appropriate reference dose ("RfD").[17] The NAS panel found that EPA's RfD for methylmercury was "scientifically justifiable."[18] EPA also issued two information collection requests ("ICRs"). The first required all coal-fired EGUs to collect coal samples throughout 1999 and to analyze those samples for mercury content. 65 FR 79825, 79826/3 (Dec. 20, 2000) (JA__). The second required approximately 80 EGUs to conduct stack sampling of mercury emissions. *Id.* (JA__). EPA did not collect any further information about the three other HAPs it suggested may need further study.

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necessary to characterize their impacts. EPA also noted a "potential concern" about nickel emissions from oil-fired EGUs, but identified "significant uncertainties" about the form and health effects of those emissions. *Id.*

[16] The Utility Study identified eleven areas where additional mercury research was needed. Utility Study at 14-8 to -9 (JA__-__).

[17] EPA defines RfD as "[a]n estimate ... of a daily oral exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effects during a lifetime." EPA, Risk Assessment Glossary, *available at* http://www.epa.gov/risk/glossary.htm (JA__).

[18] National Research Council, *Toxicological Effects of Methylmercury*, at 11 (2000) (JA__).

B. The December 2000 "Notice of Finding"

On December 14, 2000, shortly before the Clinton Administration left office and well before EPA could complete the data collection and research on mercury it said was necessary to make a §112(n)(1)(A) determination, then-departing Administrator Browner published, without any prior notice of proposed rulemaking or opportunity to comment, a "notice of regulatory finding." This notice announced her conclusions that regulation of mercury emissions from coal-fired EGUs and nickel emissions from oil-fired EGUs was "appropriate and necessary" under §112. 65 FR at 79829/2 (JA__). The notice failed to identify the increment of mercury emissions that was "appropriate and necessary" to control under §112, and did not describe the "alternative control strategies for emissions which may warrant regulation under this section." Indeed, Administrator Browner admitted that EPA could not at that time quantify the amount of methylmercury in U.S. fish attributable to mercury emissions from domestic coal-fired EGUs. *Id.* at 79827/2-3 (JA__).

Administrator Browner claimed "it is unnecessary to solicit...public comment on today's finding [because]…[t]he regulation developed subsequent to the finding will be subject to public review and comment." *Id.* at 79831/1-2 (JA__). In that future rulemaking, she explained, EPA would consider alternative control strategies. *Id.* at 79830/3 (JA__).

UARG, one of the parties on this brief, sought review of the December 2000 notice in this Court.[19] In response, EPA moved to dismiss, arguing that EPA's actions were not final[20] and would be "subject to further comment in subsequent rulemaking."[21] This Court granted EPA's motion to dismiss, finding that "[t]his court…lacks jurisdiction at this time to review the determination of the Environmental Protection Agency…that regulation of coal- and oil-fired electric utility steam generating units is appropriate and necessary…."[22] On February 12, 2002, EPA published in the *Federal Register* a notice under §112(c) listing coal-fired boilers for regulation under §112 based on the 2000 notice of finding. 67 FR 6521 (Feb. 12, 2002) (JA__).

C. The §112(n) Rulemaking

In 2004, EPA initiated a rulemaking, following the requirements of §307(d), to address HAP emissions from coal- and oil-fired EGUs. EPA considered a number of regulatory options, including: (1) no further regulation of EGU mercury emissions; (2) adoption of a §112(d) rule regulating only EGU mercury emissions; (3) adoption of rules under §112(n)(1)(A) addressing any EGU emissions that

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[19] *Utility Air Regulatory Grp. v. EPA*, No. 01-1074 (D.C. Cir. filed Feb. 16, 2001) ("*UARG v. EPA*").

[20] EPA's Motion to Dismiss at 1, *UARG v. EPA* (Apr. 9, 2001) (JA__).

[21] *Id.* at 9 (JA__); *see also* EPA's Reply in Support of Motion to Dismiss at 4, *UARG v. EPA* (May 17, 2001) ("the entire predicate for EPA's finding determination and listing decision (both legal and factual) is susceptible to further comment and administrative review") (JA__); 70 FR at 15996/2-3 (JA__).

[22] Order at 1, *UARG v. EPA,* (July 26, 2001) (JA__).

warrant regulation as "appropriate and necessary"; and (4) adoption of rules under other CAA sections that make further control inappropriate and unnecessary under §112.[23] EPA completed detailed scientific and technical studies to address data gaps identified by the Utility Study. Commenters also submitted detailed technical information on EGU mercury emissions and their health consequences.

EPA conducted extensive modeling to analyze how changes in mercury emissions from coal-fired EGUs, including total elimination of those emissions, would affect U.S. mercury deposition and methylmercury levels in fish.[24] The modeling showed that only a small fraction of the mercury deposited in the U.S. comes from domestic EGUs, and that EGUs contribute a "relatively small percentage" to fish tissue methylmercury levels in the U.S.[25] as a result of implementation of other CAA requirements, including the Clean Air Interstate Rule ("CAIR"). *See* 70 FR at 16004/2 (JA__).[26]

On March 29, 2005, EPA concluded its rulemaking. Regarding mercury, EPA found that "[b]ecause this new information demonstrates that the level of Hg emissions projected to remain 'after imposition of' section 110(a)(2)(D) does not cause hazards to public health, we conclude that it is not appropriate to regulate

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[23] *See* 69 FR at 4652 (JA__).

[24] 70 FR at 16011-25 (summarizing EPA's modeling) (JA__-__).

[25] *Id*. at 16019-20 (JA__-___) (on average about 4%).

[26] CAIR was remanded to EPA by this Court and remains in place pending replacement rulemaking. *EME Homer City Generation, L.P. v. EPA*, Nos. 11-1302 *et al.*, 2012 WL 3570721, at *24 (D.C. Cir. Aug. 21, 2012).

coal-fired Utility Units under §112 on the basis of mercury emissions." *Id.* EPA similarly concluded that regulation of nickel emissions from oil-fired EGUs was neither "appropriate" nor "necessary." *Id.* at 16007/2-08/2 (JA__-__). EPA further found, as it had under the 1970 and 1977 Acts, that EGU emissions of non-mercury HAPs were too small to warrant regulation. *Id.* at 16006/2-3 (JA__-__). Because EPA found that the December 2000 notice "lacked foundation" and because §112 regulation was neither appropriate nor necessary, there was no longer a predicate for listing EGUs. Therefore, EPA removed EGUs from the §112(c) list. *Id.* at 15994/1-2 (JA__). EPA proceeded to regulate mercury emissions from EGUs under §111 through the Clean Air Mercury Rule ("CAMR") as a backstop to ensure that expected mercury emissions reductions under CAIR would occur. 70 FR 28606 (May 18, 2005) (JA__).[27]

In this rulemaking, EPA announced its key interpretations of §112(n). EPA cited the Merriam-Webster dictionary definition of "appropriate" as meaning "especially suitable or compatible." 70 FR 16000/3 (JA__). In deciding whether regulation of EGUs was "appropriate," EPA asked whether the remaining HAP emissions from EGUs, after imposition of other CAA requirements, resulted in hazards to public health. If they do not, EPA said that it would not be "'especially suitable' -- *i.e.,* 'appropriate' -- to regulate such units under section 112." *Id.*

[27] EPA asserted that imposition of CAMR provided independent justification for not regulating coal-fired EGUs under §112. 70 FR at 16004/2 (JA__).

(JA__). EPA interpreted the term "necessary" to mean "that it is necessary to regulate Utility Units under section 112 only if there are no other authorities available under the CAA that would, if implemented, effectively address the remaining HAP emissions from Utility Units." *Id.* at 16001/2 (JA__). EPA also interpreted these terms to include consideration of regulatory and compliance costs. *Id.* at 16001/1 n.19 (JA__).

D. *New Jersey v. EPA*

Numerous parties challenged EPA's revision rule and CAMR. After all of the issues regarding these two rules were briefed, this Court limited oral argument to a single issue—whether EPA erred in removing EGUs from the §112(c) list of major source categories of HAP emissions. On February 8, 2008, the Court vacated EPA's decision to remove EGUs from the list and also vacated CAMR. *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008). The Court held that, once listed, the only way that a source category may be removed from the §112(c) list is by making the showings required by §112(c)(9). *Id.* at 581-82. Because EPA did not follow §112(c)(9), the court vacated the rule. *Id.* at 583.

The Court did not rule on whether EPA's December 2000 appropriate and necessary determination and subsequent listing decision were legally correct, whether they were supported by the factual record, whether EPA followed the proper procedural steps in taking its December 2000 actions, whether EPA's 2005

legal interpretation of §112(n)(1)(A) was correct, or whether EPA's 2005 factual findings were correct. The Court's only discussion of §112(n)(1)(A) was limited to responding to EPA's argument that an agency has inherent authority to reverse an earlier administrative determination where it has a principled basis for doing so.

The Court stated: "An agency can normally change its position and reverse a decision, and *prior to EPA's listing of EGUs under section 112(c)(1)*, nothing in the CAA would have prevented it from reversing its [§112(n)(1)(A)] determination about whether it was 'appropriate and necessary' to do so." *Id.* at 582-83 (emphasis added). But, once the nonfinal, unreviewable "appropriate and necessary" finding was followed by a nonfinal, unreviewable §112(c) listing decision, the Court said EPA was required by statute to propose and promulgate §112(d) standards for EGUs *unless*, prior to that promulgation, EPA delisted EGUs in accordance with §112(c)(9). *Id.* at 582. In sum, the Court in *New Jersey* saw no difference between delisting a properly listed source category pursuant to §112(c)(9) and administratively correcting an improper listing decision through removal of the category from the list (as EPA had done in the past when it found that a listed "major source" category did not include "major sources").[28] While, listing decisions therefore could not be corrected administratively, EPA's listing decision would be reviewable following promulgation of §112(d) standards. *See*

[28] *New Jersey*, 517 F.3d at 583 (citing respondent's brief).

Nat'l Asphalt Pavement Ass'n v. Train, 539 F.2d 775, 779 n.1 (D.C. Cir. 1976) (threshold finding under §111 is reviewable in judicial challenge of final standards).

E. Remand Rulemaking

On remand, EPA issued an ICR in two phases to update mercury emissions information and obtain extensive new emissions information on all other HAPs emitted by the "best performing" EGUs.[29] This December 2009 ICR required every EGU to provide detailed information on plant equipment and operations, obtain 12 months of data about the source and chemical constituents of each coal and oil shipment, and provide all emissions tests conducted since January 1, 2005. In the second phase of the ICR, 492 well-controlled EGUs were required to conduct stack testing for one or more HAP groupings within eight months[30]—a schedule that foreclosed retesting of suspect results. EGUs spent over $100 million to comply with the ICR.

After completion of ICR responses in September 2010, there was little time under EPA's consented-to rulemaking schedule[31] to review and analyze this

[29] EPA, Response to Comments on Proposed ICR at 26 (Nov. 5, 2009), EPA-HQ-OAR-2009-0234-0063 (JA__) ("ICR RTC").

[30] EPA, ICR Supporting Statement Part B (Dec. 24, 2009), EPA-HQ-OAR-2009-0234-0103 (JA__). EPA identified five HAP "groups" for testing: mercury, non-mercury metals, acid gases, organics and dioxins.

[31] Following the *New Jersey* decision, and before EPA could complete the §112(d) MACT rulemaking (i.e., the subject of this litigation), the U.S. District

mountain of data before drafting a proposed rule. This rushed process produced significant anomalies. For example, within days of publishing the proposed rule, UARG alerted EPA that it had divided mercury emissions data expressed in lb/*GWh* by a factor of 1,000,000, instead of the correct divisor of 1,000, to derive a proposed mercury emission standard expressed in lb/*MWh*. This resulted in a proposed rule based on mercury emissions that were calculated to be *1,000 times lower* than the actual data, which in turn led to miscalculation of the average level of mercury control achieved by the best units and misidentification of the "best performing" units. *See* UARG Comments on Proposed MATS Rule at 89-90 (Aug. 4, 2011), EPA-HQ-OAR-2009-0234-17775 ("UARG Comments") (JA__-___). In a letter to UARG, EPA admitted its error,[32] but did not issue a new proposal. The public was left to evaluate and to comment on a seriously flawed rule.

EPA published the MATS rule on February 16, 2012. In that rule, EPA concluded that its 2000 "appropriate and necessary" finding was valid when made, and constituted a sufficient basis for its 2002 action listing EGUs under §112(c). 77 FR at 9320/1 (JA__). EPA also asserted that newer information established that

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Court for the District of Columbia entered a consent decree imposing a compressed rulemaking schedule. *Am. Nurses Ass'n v. Johnson*, No. 08-2198 (D.D.C. Apr. 15, 2010) (JA__).

[32] Letter from Gina McCarthy, EPA Assistant Adm'r, to Lee Zeugin, Counsel for UARG, at 1 (May 18, 2011), EPA-HQ-OAR-2009-0234-9859 (JA__).

(i) EGU mercury emissions pose a public health hazard, (ii) utility emissions of non-mercury HAP metals pose a health and environmental threat, and (iii) acid gas EGU HAP emissions pose an environmental threat. 77 FR at 9362-64 (JA__-__). For non-mercury HAP metals, this newer information consisted of a 16-unit case study that EPA conducted immediately before issuing the proposal. 76 FR at 25011/3-12/2 (JA__-__). There was no new EPA study of EGU acid gas impacts, but rather a single literature citation to a 2011 journal article about acid gas deposition in the United Kingdom. 77 FR at 9361/3-62/1 (JA__-__).

Based on these findings, EPA rejected comments calling for it to affirm the 2005 rulemaking determination that the 2000 "appropriate and necessary" finding should not have been made, and that EPA should not have listed EGUs under §112(c). In doing so, EPA abandoned virtually all the 2005 rulemaking interpretations of §112(n)(1)(A). EPA then proceeded to issue §112(d) emission limits for EGU mercury, non-mercury HAP metals, and acid gas emissions, and §112(h) work practice standards for organic substance emissions.

According to EPA analyses, it will be extraordinarily expensive to comply with the rule (about $9.6 *billion* per year), even though its health benefits were extraordinarily low (just $4-6 million, all from reducing mercury). *See* 77 FR at 9428/3 (JA__). Significant costs stem from compliance requirements for acid gases, even though EPA concluded EGU acid gas emissions pose no health risk,

and even though it could not quantify any environmental risk associated with such emissions.[33] While EPA asserted that the rule was nonetheless cost-effective based on "co-benefits" of reducing $PM_{2.5}$ emissions—a non-HAP substance addressed under *other* CAA programs—EPA emphatically maintained that these $PM_{2.5}$ co-benefits played no role in its "appropriate and necessary" finding. 77 FR at 9320/1 (JA__).

SUMMARY OF ARGUMENT

Before undertaking any regulation of EGUs under §112, EPA must study the "public health [hazards] reasonably anticipated to occur as a result of emissions" of HAPs from EGUs. §112(n)(1)(A). If health hazards are identified, the Administrator may regulate a specific EGU HAP only "if the Administrator finds that such regulation is appropriate and necessary." *Id.* The MATS rule must be set aside because the 2002 listing of EGUs was based on a substantively and procedurally flawed December 2000 "appropriate and necessary" finding.

Even if the Court finds that EPA could augment its 2000 finding in the later 2012 rulemaking, that rulemaking does not establish that it is "appropriate and necessary" to regulate EGUs under §112. The 2012 rulemaking fails to justify EPA's departure from its 2005 rulemaking interpretations of §112(n)(1)(A).

[33] *See* EPA, Regulatory Impact Analysis for Final MATS at 3-15, Figure 3.6 (Dec. 2011), EPA-HQ-OAR-2009-0234-20131 ("RIA") (JA__). Flue gas desulfurization and dry sorbent injection ("DSI") costs are driven by acid gas standards.

Further, EPA's new interpretations are both inconsistent with the CAA and unreasonable. Finally, the record does not support EPA's findings that mercury, non-mercury HAP metals, and acid gas HAPs pose public health hazards.

While those fatal defects should end the matter, even if the Court were to accept EPA's "appropriate and necessary" analysis, the promulgated §112(d) EGU MACT standards must still be set aside for several independent reasons. First, contrary to explicit statutory directives, EPA did not distinguish between "major sources" and "area sources." Second, EPA used a flawed methodology to set the mercury standard for existing sources that combust high-BTU coal. Third, EPA arbitrarily refused to set §112(d)(4) standards for acid gases. Fourth, the work practice standards and associated definitions promulgated in the final rule are procedurally deficient because EPA failed to provide an opportunity for public comment. Finally, EPA's summary denial of UARG's §112(c)(9) delisting request was arbitrary and capricious and based on flawed statutory interpretation.

STANDING

Industry and Labor Petitioners will suffer concrete, particularized injury as a result of the direct regulation of EGUs. *See, e.g.* Southern Company, Comments on Proposed Rule at 1-2, 9-12 (Aug. 4, 2011), EPA-HQ-OAR-2009-0234-18023 ("Southern Comments") (JA__-__, __-__); National Mining Association, Comments on Proposed Rule at 1-2 (Dec. 6, 2011), EPA-HQ-OAR-2009-0234-

19825 (JA__-__). The relief requested by Industry and Labor Petitioners will redress these harms. These Petitioners have Article III standing. *See, e.g., Lujan v. Defenders of Wildlife,* 504 U.S. 555, 561-63 (1992); *Ctr. for Energy & Econ. Dev. v. EPA*, 398 F.3d 653, 656-58 (D.C. Cir. 2005).

Likewise, State Petitioners satisfy the Article III standing requirements of injury, causation, and redressability. *See Lujan*, 504 U.S. at 560-61. Among other things, States have standing to challenge rules that make their regulatory tasks more difficult. *See Nat'l Ass'n of Clean Air Agencies v. EPA*, 489 F.3d 1221, 1228 (D.C. Cir. 2007). For example, State public utility commissions, which are responsible for maintaining the reliability and continuity of each State's electricity grid, face increased regulatory challenges as the costs of complying with the MATS rule force some EGUs out of the energy market, contributing to the widespread retirement of the Nation's coal-fired generating capacity. *See* 77 FR at 9407/3 (JA__). This loss in generating capacity will complicate State Petitioners' vital task of keeping the lights on, requiring public utility commissions to manage a dwindling supply of electricity and to increase prices. Beyond the regulatory burden on States, the annual compliance cost of the rule will be $9.6 billion in 2015, which will be borne by affected sources or passed on to consumers (including the States) through higher electricity costs. *See* 77 FR at 9425/1 (JA__).

By setting aside the MATS rule, this Court would prevent these costs and redress the harm suffered by State Petitioners.

STANDARD OF REVIEW

CAA §307(d)(9) requires this Court to strike down EPA action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Agency action is arbitrary and capricious where EPA "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *North Carolina v. EPA*, 531 F.3d 896, 906 (citation and quotation marks omitted), *modified on reh'g*, 550 F.3d 1176 (D.C. Cir. 2008); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto. Ins. Co.,* 463 U.S. 29, 43 (1983); *see also Prill v. NLRB,* 755 F.2d 941, 947-48 (D.C. Cir. 1985).

ARGUMENT

I. EPA'S EGU MACT STANDARDS ARE UNLAWFUL UNDER §112(n)(1)(A).

Congress directed EPA to regulate EGUs only to the extent "appropriate and necessary" after considering other CAA requirements. While EPA recognized that

"Congress treated Utility Units differently from other major and area sources…,"[34] EPA's interpretation and implementation of §112(n)(1)(A) here effectively eliminate this distinction, contrary to the language and structure of §112.

A. Because the Browner Finding Was Unlawful, the §112(d) EGU MACT Standards Must Be Vacated.

A valid listing decision under §112(c) is the legal predicate for promulgating any §112(d) standards. In the case of EGUs, assuming for purposes of argument that EPA may elect to regulate under §112, EPA's §112(c) listing would require a lawful "appropriate and necessary" finding under §112(n)(1)(A). *New Jersey*, 517 F.3d at 582.

While an agency generally may correct an erroneous threshold finding, this Court in *New Jersey* found that, absent a §112(c)(9) delisting determination, §112(c) does not allow EPA to correct an erroneous §112(n)(1)(A) (or even an erroneous "major" source) threshold finding administratively. Instead, according to the Court, EPA must proceed to final promulgation of §112(d) standards and only this Court may "correct" an erroneous §112(n)(1)(A) decision after promulgation of §112(d) standards. As the *New Jersey* Court held, on review of those standards, the Court must determine whether the listing predicates for those

[34] 70 FR at 15997/2 (JA__); *see also* 77 FR at 9333/3 (acknowledging that "disparate treatment" of EGUs under §112) (JA__).

standards were lawful and, if not, "correct" that flaw through vacatur of the standards. *Id.* at 583.

EPA added EGUs to the §112(c) list of source categories in 2002, based on Administrator's December 2000 §112(n)(1)(A) notice. As this Court explained in *New Jersey*, once the Administrator issued a notice in 2000 that EGUs should be regulated under §112 and then listed EGUs, the statute "prevented it [EPA] from reversing its determination about whether it was 'appropriate and necessary' to do so." *Id.* at 582-83. EPA did not purport in the instant rulemaking to renew the earlier listing of EGUs. Therefore, as a consequence of *New Jersey*, the validity of the 2002 listing decision must be judged in reference to the validity of the 2000 §112(n)(1)(A) notice of finding on which it was based; if that finding was unlawful, the listing was unlawful.

The record plainly shows that when EPA issued its December 2000 notice, it had *not* undertaken a §112(n)(1)(A) rulemaking, as required under §307(d). Nor had EPA undertaken the work needed to characterize mercury health risks. *See supra* p.13. Therefore, the December 2000 notice was a fundamentally flawed threshold finding that could have no legal consequences and could not lawfully impose future obligations on EPA to regulate under §112(d).

In *Thomas v. New York*, 802 F.2d 1443 (D.C. Cir. 1986), this Court held that only a "threshold" finding embodied in a legislative rule can compel future agency

action. In *Thomas*, this Court addressed whether a letter, in which an outgoing Administrator concluded that acid deposition was endangering public health in the U.S. and Canada, obligated future EPA Administrators to take the regulatory action under CAA §115 that would be triggered by such a finding. Because any EPA statement of future effect must be embodied in a legislative "rule" in order to bind a future Administrator, *id.* at 1446-47, and because the Administrator had not made the §115 findings in a notice-and-comment rulemaking, this Court found in *Thomas* that it was not a "rule" and thus had no legal consequences. *Id.* at 1447.

Petitioner UARG sought judicial review of the December 2000 finding. That petition was dismissed by this Court on finality grounds. *See supra* p.14. In *New Jersey*, petitioner UARG relied on *Thomas* in defending EPA's 2005 §112(n)(1)(A) finding, which was made after a notice-and-comment §307(d) rulemaking and which rejected the earlier December 2000 finding. This Court, however, held that, because EPA did not cite or rely on *Thomas* in its brief, the Court would not consider the *Thomas* argument in UARG's brief in *New Jersey*. *New Jersey*, 517 F.3d at 581 n.3. Accordingly, because this *Thomas*-based argument could not be resolved in *New Jersey*, that argument is now suitable for review for the first time under §307(b).

Because the December 2000 §112(n)(1)(A) finding could not, under *Thomas*, be given legal consequences for future EGU regulation, it could not

provide the basis for a §112(c) EGU listing decision. Without a lawful listing, EPA had no obligation, or authority, to adopt any standards for EGUs under §112(d). On this basis alone, EPA's EGU MACT standards must be vacated.

B. EPA's Current Interpretations of §112(n)(1)(A) Are Unlawful.

1. Section 112(n)(1)(A) Authorizes Regulation Only of Those EGU HAPs for Which EPA Makes an "Appropriate and Necessary" Finding.

In its December 2000 §112(n)(1)(A) notice, EPA announced that mercury emissions from coal-fired EGUs merited regulatory consideration under §112. 65 FR at 79827/3 (JA__). Then, in its 2005 rulemaking, EPA determined that mercury was the *only* HAP from coal-fired EGUs warranting consideration. 70 FR at 16002/1-2 (JA__). In 2012, EPA changed course and now interprets §112(n)(1)(A) to require regulation of *all* HAPs emitted by EGUs whether or not those emissions pose hazards to public health, provided that EPA makes a health finding for at least one EGU HAP. This change in interpretation is inconsistent with the statute and is unreasonable.

Section 112(n)(1)(A) directs EPA (i) to study "hazards to public health reasonably anticipated to occur as a result of emissions by [EGUs]" of listed HAPs and then to report to Congress the results of that study, and (ii) based on those results, to devise "alternative control strategies for emissions *which may warrant regulation* under this section." *Id.* (emphasis added). This language requires EPA

to identify specific EGU HAPs "which may warrant regulation" based on specific public health hazards they engender, and not to regulate "all HAPs" regardless of hazards to public health and regardless of whether they may warrant regulation.

Furthermore, §112 directs EPA to regulate EGU HAPs under §112 *only* if it finds "*such regulation*" is "appropriate and necessary." §112(n)(1)(A) (emphasis added). "Such regulation" cannot be "appropriate and necessary" for any EGU HAPs that do not pose "hazards to public health." Rather, regulation is reserved by the plain terms of §112(n)(1)(A) to EGU HAPs that pose hazards to public health, and the regulation of which is "appropriate and necessary." Indeed, regulating emissions that do not pose hazards is incompatible with the fundamental purpose of the CAA "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 the population." §101(b)(1). Yet under EPA's interpretation of the CAA, EPA's 2000 "appropriate and necessary" finding for mercury compels severe regulatory compliance requirements for non-mercury HAPs—requirements that remain wholly inappropriate and unnecessary given the more recent information EPA now advances for those substances. *See infra* Argument I.C.

The legislative history supports this commonsense reading of §112(n)(1)(A). As explained by the sponsor of this provision, EPA's authority to regulate EGUs is premised on EPA's ability to "clearly establish that emissions of any pollutant, or

aggregate of pollutants, from such units cause a significant risk of serious adverse effects." 136 Cong. Rec. H12934 (daily ed. Oct. 26, 1990) (statement of Rep. Oxley), *reprinted in* 1 1990 Legis. Hist. at 1416-17 ("Oxley Statement") (JA__-__). Though now discounting Representative Oxley's statement, EPA previously relied on the very same statement to support its interpretation of §112(n)(1)(A). *Compare* 77 FR at 9322/1-2 (JA__) *with* 70 FR at 16000/2 (JA__).

In the 2000 "appropriate and necessary" notice of finding, EPA concluded that mercury emissions were a "threat to public health." 65 FR at 79827/2 (JA__); *see also New Jersey*, 517 F.3d at 578 (citing mercury as the basis for 2000 "appropriate and necessary" finding). In 2004, EPA confirmed that based on the 2000 record "it could not reasonably have reached…a conclusion" that other HAPs should be considered for regulation under §112, stating that the "record supports only a finding that emissions of Hg and Ni warrant regulation." 69 FR at 4683/2 (JA__).

At the time, some commenters claimed that this Court's decision in *National Lime Ass'n v. EPA*, 233 F.3d 625, 633 (D.C. Cir. 2000), required EPA "to promulgate emission standards for all power plant HAP emitted in significant quantities."[35] EPA disagreed, stating that EGUs are regulated differently from

[35] EPA, RTC Concerning Proposed Revision of 2000 Finding and Removal of EGUs from §112(c) List, at 14 (Mar. 15, 2005), EPA-HQ-OAR-2002-0056-6193 (JA__).

other source categories under §112, and that §112(n)(1)(A) limits regulation to those HAPs that are "appropriate" to regulate.[36] After rulemaking, EPA thus interpreted §112(n)(1)(A) in a manner consistent with its plain language: to authorize regulation under the "appropriate and necessary" standard only of those HAPs that pose hazards to public health.

Reversing its prior position, EPA now construes §112(n)(1)(A) to require EPA "to regulate all HAP from major sources of HAP emissions once a source category is added to the list of categories under CAA section 112(c)," citing *National Lime*, 233 F.3d at 633 (JA__). 77 FR at 9326/1. Under this view, EPA has no discretion to limit its regulations of EGUs to only those HAPs "which may warrant regulation" under §112(n)(1)(A).

In changing its 2005 rulemaking interpretation, other than citing *National Lime*, EPA does nothing to explain. EPA does not engage the statutory language or purposes. Nor does EPA explain why it is rejecting its previous view of the CAA and of *National Lime*.

As EPA explained in 2005, *National Lime* does not address §112(n)(1)(A). Rather, it involved the regulation of *major sources* generally under §112(c) and (d). For non-EGU sources, §112(c)(1) requires EPA to publish and maintain a list of "major sources" of HAP emissions. "Major sources" are defined in §112(a)(1)

[36] *Id.* at 16 (JA__).

by the objective amount of their HAP emissions, not by EPA's discretionary view of whether regulation of an EGU HAP emission that poses a health hazard is "appropriate and necessary." Reliance on *National Lime*'s interpretation of different statutory provisions is therefore misplaced. *Radzanower v. Touche Ross & Co.*, 426 U.S. 148, 153 (1976) ("Where there is no *clear* intention otherwise, a specific statute will not be controlled or nullified by a general one.") (emphasis added); *Norwest Bank Minn. Nat'l Ass'n. v. FDIC*, 312 F.3d 447, 451 (D.C. Cir. 2002) ("When both specific and general provisions cover the same subject, the specific provision will control.").

EPA's reliance on *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 545 U.S. 967 (2005), is also misplaced. *See* 77 FR at 9323/1 (JA__). It is insufficient for EPA to assert, without explanation, that its new interpretation is "reasonable" when that interpretation differs from its interpretation in 2000 and 2005. *See id.* "[A]n agency changing its course…is obligated to supply a *reasoned analysis* for the change…." *See Motor Vehicle Mfrs. Ass'n,* 463 U.S. at 42 (emphasis added). Here, EPA's bald assertion that its changed interpretation is "reasonable" and therefore accorded "deference," without analyzing the different statutory provisions Congress adopted for EGUs and other sources as EPA did in its 2005 rulemaking interpretation, must fail and the rule must be vacated. *See*, *e.g.*, *Mass. Trs. v. United States*, 377 U.S. 235, 248 (1964)

(regulation based on an incorrect view of applicable law cannot stand as promulgated); *PDK Labs., Inc. v. DEA*, 362 F.3d 786, 797-98 (D.C. Cir. 2004); *see also Prill*, 755 F.2d at 947-48 (agency action premised on a mistaken conclusion that the agency has no discretion is inherently arbitrary and must be reconsidered based on a proper understanding of the agency's discretion); *Transitional Hosps. Corp. v. Shalala*, 222 F.3d 1019, 1029 (D.C. Cir. 2000) (same).

2. EPA's Application of the §112(c)(9) Delisting Criteria in Making the §112(n)(1)(A) "Appropriate and Necessary" Finding Is Unlawful.

In 2005, EPA declined to interpret §112(n)(1)(A) to incorporate the "ample margin of safety" standard found in §112(f). 70 FR at 16001/3 (JA__). Rather, EPA interpreted the statute more broadly, finding that §112(n)(1)(A) "called on EPA to consider the 'hazards to public health reasonably anticipated to occur' from utility HAP emissions'...in determining whether it is both appropriate and necessary to regulate [EGUs] under section 112." *Id.*

Now, on the grounds that §112(n)(1)(A) "neither defines the phrase 'hazards to public health'" nor "sets forth parameters for EPA to use in determining whether HAP emissions from EGUs pose a hazard to public health," 76 FR at 24992/3 (JA__), EPA concludes for the first time that the §112(c)(9) criteria for delisting source categories is a sufficient basis for determining that it is "appropriate" to regulate EGUs under §112(n)(1)(A). 76 FR at 24992/2 ("[W]e conclude today that

it is appropriate to regulate non-Hg HAP because emissions of these HAP from some EGUs pose a cancer risk greater than one in one million to the most exposed individual.") (JA__).

At the outset, the §112(c)(9) evidentiary standard for delisting—"may result"—is different from the evidentiary test governing a §112(n)(l)(A) finding—"reasonably anticipated to occur." Furthermore, the delisting provision applies that different evidentiary standard to both "health" and "environmental" effects whereas §112(n)(l)(A) requires EPA to focus exclusively on health hazards in selecting EGU HAP candidates for regulation. *See infra* p.44. These differences in language alone preclude an interpretation of §112(n)(l)(A) as incorporating the regulatory tests in §112(c)(9).

More fundamentally, EPA's interpretation of the phrase "hazards to public health" is inconsistent with the language and structure of §112. As discussed, Congress wrote §112(n)(1)(A) to treat EGUs *differently* from all other "major sources," requiring an evaluation of whether it is "appropriate and necessary after considering the results of the study" on EGU HAP emissions to list those sources for §112 regulation. By applying the *delisting* provisions of §112(c)(9) in making the initial, *pre-listing* determination whether it is "appropriate and necessary" to regulate EGUs, EPA has unlawfully imposed requirements on itself that Congress chose not to impose at the listing stage. Essentially, EPA would treat EGUs the

same as all other major source categories—as a category that *must* be listed *unless* the delisting criteria are met. Because this approach is inconsistent with the statute, the rule must be set aside.

3. A §112(n)(1)(A) Finding Does Not Compel Regulation Under §112(d).

Even if EPA had properly determined that it is "appropriate and necessary" to regulate EGU HAP emissions, EPA misinterpreted the statute by concluding that those emissions must be regulated through MACT standards under §112(d), and cannot be regulated under §112(n)(1)(A) to the degree "appropriate and necessary." Had Congress intended that EPA regulate EGU HAP emissions only through §112(d), Congress would have directed EPA to regulate EGU emissions "under §112***(d)***" once an "appropriate and necessary" finding was made. Congress did not do so, stating instead that "[t]he Administrator shall regulate [EGUs]…*under this section*" upon such a finding. §112(n)(1)(A) (emphasis added). Indeed, Congress specifically rejected the Senate bill that expressly prescribed a "list-under-(c)-and-regulate-under-(d)" approach for EGUs similar to the approach for other source categories. *See infra* p.6.

Under §112(n)(1)(A), Congress directed EPA to establish "*such regulation*" for EGUs that is "appropriate and necessary after considering the results of the study required by this subparagraph." §112(n)(1)(A) (emphasis added). Regulation of EGU HAPs that do not pose hazards to public health, or regulation at

a level that is greater than needed to eliminate the hazard, is *not* "regulation [that] is appropriate and necessary." *Id.* Thus, §112(n)(1)(A) *itself* provides EPA authority to regulate EGU HAP emissions, as EPA concluded in 2004 when it proposed §112(n)(1)(A) as a regulatory alternative. 69 FR at 4661/2 (JA__).

In this regard, MACT standards control emissions without regard to what is "appropriate" or "viable" regulation. *See, e.g., Sierra Club v. EPA*, 479 F.3d 875, 883 (D.C. Cir. 2007) (§112(d)(3) requires EPA to set standards based on the best performing sources even if EPA believes such standards are "not 'appropriate' or 'viable'"). In any specific case, a MACT standard might provide more or less control than is needed to address the hazards identified under §112(n)(1)(A), *cf. EME Homer City*, 2012 WL 3570721, at *11-12 ("[EPA] must avoid using [§110(a)(2)(D)]…in a manner that would result in unnecessary over-control….and may not exceed a statute's authorization or violate a statute's limits."), or may result in control strategies different from those identified by EPA for emissions that may warrant regulation. In either case, applying the MACT standard-setting criteria would not result in "such regulation [as] is appropriate and necessary." *Cf. Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 473 (2001) ("requisite" means "sufficient, but not more than necessary…to protect public health").

Further, EPA's current interpretation makes identification of "alternative control strategies for emissions which may warrant regulation" a meaningless

exercise. If Congress had intended that EPA regulate EGU HAP emissions only by establishing standards based on the MACT floor and beyond-the-floor provisions in §112(d), then there is no need to identify such alternative control strategies. By rendering meaningless the §112(n)(1)(A) requirement that EPA identify alternative control strategies for emissions that may warrant regulation, EPA's interpretation is unlawful and must be rejected. *See Mac's Shell Serv., Inc. v. Shell Oil Prods. Co.,* 130 S. Ct. 1251, 1261 (2010) (statutes should not be interpreted to render a provision meaningless).

Finally, by making the rulemaking requirements of §307(d) applicable to the "promulgation…of *any…regulation under section 7412…(n)*," §307(d)(1)(C) (emphasis added), Congress confirmed that §112(n)(1)(A) confers authority to establish "such regulation [as] is appropriate and necessary" to address those "emissions which may warrant regulation."

In sum, EPA misconstrued the statute as compelling regulation under §112(d) and precluding any regulation of EGUs under §112(n)(1)(A). *See* 77 FR at 9330/2 (JA__). EPA's §112(d) MACT standards therefore must be vacated. *See, e.g., Transitional Hosps. Corp.*, 222 F.3d at 1029; *Prill*, 755 F.2d at 948; *Sea-Land Serv., Inc. v. DOT*, 137 F.3d 640, 646 (D.C. Cir. 1998).

4. EPA Failed To Consider the Costs of Regulation in Its Appropriate and Necessary Finding.

In 2005, EPA construed §112(n)(1)(A) to allow consideration of costs in determining whether and to what extent regulation of EGU HAP emissions is "appropriate" following a finding that public health hazards warrant regulation. 70 FR at 16000/3-01/1 (JA__-__). ("Even if the remaining utility HAP emissions cause hazards to public health, it still may not be appropriate to regulate [EGUs] under section 112 because there may be other relevant factors [such as cost]…that would lead the Agency to conclude that it is not…'appropriate' to regulate [EGUs] under section 112."). In this rulemaking, EPA has abruptly changed course and "reject[ed]" its "2005 interpretation that authorizes the Agency to consider other factors (*e.g.,* cost)" in determining whether regulation is "appropriate." 76 FR at 24989/3 (JA__).

EPA's new interpretation unreasonably constrains the language of §112(n)(1)(A). "Appropriate" is not defined in the CAA. It is defined by Webster's Dictionary to mean "especially suitable or compatible." Merriam-Webster's Online Dictionary, http://www.merriam-webster.com/dictionary/appropriate (last accessed Oct. 23, 2012). *See also* New Oxford American Dictionary (2d ed. 2005) ("Appropriate" means "suitable or proper in the circumstances."); *Schindler Elevator Corp. v. United States ex rel.*

Kirk, 131 S.Ct. 1885, 1891 (2011) (relying on dictionary definition of term not defined in statute).

Based on the plain meaning of "appropriate," it is "suitable" and "proper" to take into account costs to the nation's electricity generators when deciding whether to regulate EGUs. The impact of those costs will ripple throughout the Nation's economy, affecting consumers, small businesses, industry, and all levels of government. Excluding consideration of costs would be *im*proper and *un*suitable, given the fundamental role that electricity generation plays in all economic activity. *TVA v. EPA*, 278 F.3d 1184, 1208 (11th Cir. 2002).

EPA's new interpretation also ignores critical differences between regulating EGUs under §112(n)(1)(A) and regulating other sources under §112(c). Regulation of major sources other than EGUs is mandatory pursuant to the two-step listing and then standard-setting process Congress established in §112(c) and (d). Under §112(c), only the quantity of emissions plays a role in determining whether a source category is listed.[37] In contrast, Congress required in §112(n)(1)(A) that EGUs be regulated only if EPA determines it is both "appropriate" and "necessary" after considering the results of the Utility Study. In short, the fact that §112(c) establishes an automatic listing requirement that does not allow for consideration of costs for sources other than EGUs, 77 FR at 9327/1

[37] *See* §112(a)(1) (defining "major source").

(JA__), does not inform whether cost considerations must factor into EPA's "appropriate" finding under §112(n)(1)(A) for EGUs.

It is "the settled law of this circuit" that "[i]t is only where there is 'clear congressional intent to preclude consideration of cost' that we find agencies barred from considering costs." *Michigan v. EPA*, 213 F.3d 663, 678 (D.C. Cir. 2000) (quoting *NRDC v. EPA*, 824 F.2d 1146, 1163 (D.C. Cir. 1987)). Here, there is no "clear congressional intent" that precludes EPA from taking costs into account in determining appropriateness. To the contrary, EPA is required to consider the extraordinary costs that would be imposed by the MATS rule given the plain meaning of "appropriate," Congress's use of that term in §112(n)(1)(A), and §112's structure.

EPA's interpretation of "appropriate" is also unlawful because it eliminates the discretion that Congress intended EPA to exercise after completing the Utility Study. EPA claims it "*must find* that it is appropriate to regulate EGUs if it determines that any single HAP emitted by utilities poses *a hazard* to public health or the environment." 76 FR at 24988/1 (emphasis added) (JA__). But §112(n)(1)(A) provides that EPA—through the Utility Study—would first identify "a health hazard" from HAPs emitted from EGUs, and then determine whether regulation of that health hazard is "appropriate and necessary."

If Congress wanted to *require* EPA to regulate without any further consideration if the Study identified "a hazard," it would have said so. Instead, Congress gave EPA discretion to decide whether to regulate if the Utility Study identified hazards to public health. And the discretion Congress wanted EPA to exercise includes an evaluation of the costs and benefits of addressing whatever hazards are identified in the Utility Study.[38] EPA unlawfully eliminated the exercise of that discretion by incorrectly interpreting "appropriate" to preclude consideration of costs.

When the costs and potential benefits of the MATS rule *are* considered, it is unmistakable that regulation of EGUs is not appropriate. According to EPA, the annual cost to comply with the rule is $9.6 billion. 77 FR at 9306, Table 2 (JA__). The adverse impact of EPA's rule on the reliability of the electrical grid because of early plant retirements will impose additional costs.[39] By contrast, the rule's

[38] For example, §112(n)(1)(A) directs EPA to "develop and describe…alternative control strategies" for those "emissions which may warrant regulation under this section." §112(n)(1)(A). An evaluation of "alternative" controls includes an assessment of both the amount of HAPs controlled by different control techniques *and their costs.*

[39] Texas has its own power grid. Texas electricity producers rely heavily on the state's own natural resources, including coal. EPA's promulgated emission limits will effectively end the construction of new coal-fired facilities (and may cause the closure of existing facilities). Texas cannot offset these losses by using power from other sources because it is not sufficiently connected to any other power grid. EPA failed to adequately consider and account for reliability issues unique to Texas. Texas Commission on Environmental Quality, Comments on

benefits of reducing HAPs are *de minimis*: only $4 to $6 million in 2016 based on EPA's analysis of health effects due to recreational freshwater fish consumption. *Id*. Put another way, it would cost at least $1,500 for $1 of benefit in HAP emission reductions.

Although EPA estimated the rule's "Total Monetized Benefits" to be $37 to $90 billion, nearly all ($36 to $89 billion) are attributed to a non-HAP substance regulated under other CAA provisions—"$PM_{2.5}$-related Co-benefits."[40] EPA insists, however, it did not base the "appropriate and necessary finding on hazards to public health attributable to PM emissions." *Id*. at 9320/1 (JA__). Consequently, the only health benefit from HAP reductions attributable to the rule are the $4 to $6 million in benefits associated with eating fish.

Perhaps EPA could demonstrate it is appropriate to spend $9.6 *billion* every year to achieve an annual health benefit of $4 to $6 *million* from reducing HAP emissions, or that spending a significant part of that $9.6 billion annually is justified to reduce acid gas emissions that pose no health or quantifiable environmental impact.[41] EPA, however, never performed any such analysis and did not base its "appropriate" finding on those grounds, given its incorrect

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Proposed Rule at 1-2, 26-28 (Aug. 4, 2011), EPA-HQ-OAR-2009-0234-18034 (JA__-__, __-__).

[40] Additional "co-benefits" are "Climate-related Co-Benefits" of $36 million in 2016. *Id*.

[41] As noted above, EPA cites a single study for its acid gas finding that does not even examine the EGU acid gas emissions EPA has determined to regulate.

interpretation that §112(n)(1)(A) precludes such considerations. EPA's failure to take costs into account, as Congress intended, requires vacatur of the MATS rule.

5. EPA Violated §112(n)(1)(A) by Making Environmental Effects the Trigger for an "Appropriate and Necessary" Finding.

CAA §112(n)(l)(A) calls for a study that focuses exclusively on identifying EGU HAP emissions that pose "hazards to public health" and directs EPA to regulate those emissions only if "appropriate and necessary…considering the results of the study." In 2005, EPA read §112(n)(1)(A) in accordance with its plain text, as excluding emissions that only had environmental effects from the emissions that the Utility Study could target for "appropriate and necessary" evaluation. 70 FR at 15998/1-2 (JA__).[42] EPA explained that:

> [W]e believe that environmental factors unrelated to public health, although they can be considered in the appropriate inquiry, may not independently or, in conjunction with one another, justify regulation of Utility Units under section 112 when EPA has concluded that hazards to public health are not reasonably anticipated to result from utility HAP emissions.

Id. at 16002/3 (JA__).

[42] As EPA itself recounted in its petition for certiorari in *New Jersey*, consideration of environmental impacts is "inconsistent with the text of Section 7412(n)(1)(A), under which 'the condition precedent for regulation…is public health hazards, not environmental effects.'" EPA Pet. for Cert. at 7, *EPA v. New Jersey*, No. 08-512 (U.S. Oct. 17, 2008) (ellipsis in original, citation omitted) (JA__).

In 2012, EPA abandoned the CAA's plain meaning and its 2005 interpretation, saying that §112(n)(1)(A) "require[s] the Agency to find regulation of EGUs…appropriate if we determine that HAP emissions from EGUs pose a hazard to public health *or the environment* at the time the finding is made." *See* 76 FR at 24988/1 (emphasis added) (JA__); 77 FR at 9325/1 (JA__)). EPA argues that if Congress meant to "prohibit EPA from considering adverse environmental effects" as a primary criterion for selecting emissions that would be evaluated in an "appropriate" finding under §112(n)(1)(A), it was incumbent on Congress to have "stated so expressly." 76 FR at 24988/2 (JA__) (referenced at 77 FR at 9325/1 (JA__)).

Congress, however, knew how to direct EPA to consider environmental impacts in making regulatory choices and did not do so in §112(n)(1)(A). Numerous *other* provisions of §112, including elsewhere in §112(n), expressly require consideration of both health and environmental effects.[43] Thus, the fact that "environmental effects" are not mentioned in §112(n)(1)(A) does not give EPA license to consider such effects as a key factor that triggers an "appropriate and necessary" evaluation under §112(n)(1)(A). Instead, omission of "environmental effects" from §112(n)(1)(A) is a clear signal that those effects are *not* what brings an EGU HAP into this program.

[43] *See* §112(n)(5) & (6); §112(b)(2); §112(e)(2)(A).

The Supreme Court has recognized that "where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally…in the disparate inclusion or exclusion." *Russello v. United States*, 464 U.S. 16, 23 (1983). Similarly, in *Ethyl Corporation v. EPA*, 51 F.3d 1053, 1058 (D.C. Cir. 1995), this Court rejected EPA's assertion that it could make public health impacts the focus of its regulatory determination even though the statute lacked any mention of such impacts: "Section 211(f)(4) instructs the Administrator to consider a new fuel additive's effects only on emission standards. The language of the provision…is specific and definite; it does not permit the Administrator to consider other factors 'in the public interest.'" *Id.* at 1058. The legislative history confirms that under §112(n)(1)(A), EPA "may regulate [EGUs] *only if* the studies described in section 112(n) clearly establish that emissions of any pollutant…from such units cause a significant risk…on the *public health*."[44]

Because EPA made environmental effects of HAPs a key factor, and in the case of acid gas HAPs the only factor, in its appropriate and necessary determination, the MATS rule is contrary to law and must be set aside.

[44] Oxley Statement at 1416 (emphases added) (JA__).

6. EPA Improperly Considered the Impacts of Non-EGU HAP Emissions as the Trigger for an "Appropriate and Necessary" Finding.

EPA acknowledges that the "appropriate and necessary" finding is based on the EGU emissions addressed in the "Utility Study," and that the "scope of the Utility Study was limited to HAP emissions from EGUs." 77 FR at 9322/2 (JA__); 76 FR at 24987/3 (JA__). Contrary to its 2005 interpretation, EPA now interprets §112(n)(1)(A) as authorizing regulation without a showing that EGU emissions "alone would cause the harm."[45] EPA's interpretation again conflicts with the language of §112(n)(1)(A), which makes EGU emissions that have been identified in the Utility Study the trigger for an "appropriate and necessary" determination.

Furthermore, under §112(n)(l)(A) only hazards "reasonably anticipated to occur as a result of" EGU HAPs emissions may be evaluated by EPA, not EGU emissions that may contribute to a hazard that "occur[s] as a result of" HAPs emitted by other sources. Here again, EPA has departed from numerous CAA provisions that distinguish between emissions that cause harm and emissions that

[45] 77 FR at 9325/3 (JA__). EPA's consideration of emissions from other sources plays a key role in its "appropriate and necessary" finding for mercury and the acid gas HAPs. *See* EPA, Hg Risk Technical Support Document ("TSD"), §2.3 Table 2-5 (Dec. 2011), EPA-HQ-OAR-2009-0234-19913 (EPA's mercury study based on methylmercury levels in fish where EGUs' contribution to fish tissue levels was on average 3.4%) (JA__); 77 FR at 9362/1 ("Given the extent and importance of the sensitive ecosystems evaluated in the review of nitrogen and sulfur deposition any substance [acid gas HAP] that contributes to further acidification must be considered to be affecting the public welfare.") (JA__).

contribute to harm. *Compare* §111(b)(1)(A) (addressing emissions that "cause[], or contribute[] significantly to, air pollution") *with* §112(n)(l)(A) (addressing hazards that "occur as a result" of EGU HAPs).

The legislative history confirms that EPA's authority is limited initially to consideration of hazards associated with HAP emissions *from EGUs*. As the sponsor of §112(n) explained, EPA "may regulate fossil fuel fired electric utility steam generating units" only if emissions of any pollutant "*from such units*" cause a significant risk of serious adverse effects to the public health.[46] Thus, the regulation of EGUs is authorized only if EPA were to determine that HAP emissions *from EGUs* (not EGU HAP emissions plus HAP emissions from other sources) cause a significant risk of serious adverse effects to the public health. Because EPA's "appropriate and necessary" finding is based on public health hazards associated with non-EGU emissions, this rule must be set aside.

C. EPA's "Appropriate and Necessary" Determinations Are Unlawful.

In addition to defending its 2000 "appropriate and necessary" finding on its own terms, EPA advances new technical information in support of this finding. But neither the 2000 information nor the new information provide a rational basis for that finding.

[46] Oxley Statement at 1416 (emphasis added) (JA__).

1. Mercury

EPA's 2000 finding addressed nationwide exposures to mercury from all sources and concluded that "mercury is both a public health concern and a concern in the environment."[47] EPA then made the qualitative observation that "there is a plausible link between methylmercury concentrations in fish and mercury emissions from coal-fired [EGUs]."[48] EPA could not, however, quantify "the degree to which that linkage occurs."[49] By failing to quantify the contribution of EGUs to methylmercury in fish, EPA had no factual basis for concluding that health hazards were "reasonably anticipated to occur as a result of [EGU] emissions." 70 FR at 16006/3 (JA__).

In 2005, EPA conducted extensive modeling to quantify the public health significance of EGU mercury emissions. The modeling showed that total EGU mercury emissions would be reduced from 48.57 tpy in 2001 to 34.42 tpy in 2020 due solely to the implementation of other CAA requirements, including CAIR.[50] The modeling also demonstrated that further reductions beyond this 34 tpy level would have little or no impact on methylmercury levels in fish[51] and, hence, would not significantly reduce human exposure to methylmercury. As a result, EPA

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[47] 65 FR at 79830/1 (JA__).
[48] *Id.*
[49] *Id.*
[50] 70 FR at 16018, Table VI-2 (JA__).
[51] *Id.* at 16020, Table VI-6 (JA__).

concluded that "the [national] level of Hg emissions [34.42 tpy] projected to remain 'after imposition of' section 110(a)(2)(D) does not cause hazards to public health,"[52] and that regulation of EGU mercury emissions under §112 was not "appropriate."[53]

The 2012 MATS rulemaking did not abandon EPA's 2005 mercury modeling. In fact, the mercury emissions data from the 2010 ICR show that EPA's 2005 modeling had *significantly overstated* the amount of mercury EGUs emit without any §112 regulation. Based on more recent data, EPA estimated that EGU's 2010 mercury emissions were 29 tpy compared to the 34.42 tpy it projected in 2005 as presenting no hazard to public health. EPA's failure to address the 2005 study and explain why that study no longer supports the conclusion that EPA reached in 2005, *see, e.g. Motor Vehicle Mfrs. Ass'n,* 463 U.S. at 42, renders EPA's 2012 determinations arbitrary and capricious.

Without addressing its 2005 analysis, EPA conducted an entirely new analysis to assess mercury risk in the context of IQ benefits. The Science Advisory Board ("SAB") panel convened by EPA to review that analysis reported that SAB reviewers "could not evaluate the [new] risk assessment based …[on] information

[52] *Id.* at 16004/2 (JA__).
[53] *Id.*

provided in the [TSD]. Important elements of the methods and findings are missing or poorly explained."[54]

The Mercury TSD employs a series of assumptions that vastly overstate mercury exposure.[55] Even with these overestimates, EPA could only calculate an aggregate public health benefit from the MATS rule of a total of 510 IQ points to the most sensitive individuals (prenatally-exposed children).[56] This hypothetical increment of two one-thousandths of an IQ point for each individual in that population, RIA at 4-56 (JA__), is too small to have any scientifically discernible meaning or public health impact. These results confirm EPA's 2005 rulemaking conclusion that mercury emissions do not present a public health hazard, and require that the MATS rule be set aside.

2. Other HAP Metals

EPA used its prior dispersion modeling and select emissions data from the 2010 ICR to identify 16 facilities that it believed were likely to present high off-site risks of cancer from emissions of non-mercury HAP metals. EPA, Non-Hg

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[54] SAB letter to EPA Adm'r Jackson at 1 (Sept. 29, 2011), EPA-SAB-11-017 (JA__). The SAB final report was submitted almost two months *after* the public comment period closed. EPA refused to grant the SAB panel's request that it be provided an opportunity to review the final TSD.

[55] UARG Comments at 6, 58-72 (JA__, __-__); EPRI MATS Rule Comments at 3-1, 3-10 to -11, App. G at G1-12 (JA__, __-__, __-__). The Hg exposure levels EPA calculated in the Mercury TSD are more than *2 times higher* than those in the Utility Study, despite Hg emissions having decreased almost 45%; Southern Comments, Attachments B & C (JA__, __).

[56] *See* RIA at 4-56 (JA__).

Case Study Memo at 1-2 (Mar. 16, 2011), EPA-HQ-OAR-2009-0234-2939 (JA__). EPA's goal was to find a single EGU presenting risks greater than one-in-one million for the most exposed individuals, which EPA then used to support an "appropriate and necessary" finding.[57] EPA's abbreviated modeling effort was infected with errors.

Contrary to over a decade of EGU emissions data and modeling, hexavalent chromium emissions drove the risk estimate for the five coal-fired units with risks that slightly exceeded the one-in-one million level. *See* UARG Comments at 75-76 (JA__-__). A simple review of the sampling results for these facilities showed that the removal efficiencies for chromium and nickel for these units were far different than for other trace metals. These results suggested sample contamination. EPA, MATS ICR Data, Coal HAP Metals spreadsheet at "Coal Metals Data" tab (Dec. 16, 2011) (JA__).

Despite comments raising the sample contamination issue, EPA refused to change the chromium emission inputs. 77 FR at 9357/1 (JA__).[58] Had EPA used

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[57] Under EPA's theory, because a single, isolated plant posing off-site risks greater than one-in-one million would violate the §112(c)(9) delisting criteria, it would also require an "appropriate and necessary" finding under EPA's new interpretation of §112(n)(1)(A). *See* 76 FR at 24999/2 ("[W]e conclude today that it is appropriate to regulate non-Hg HAP because emissions of these HAP from some EGUs pose a cancer risk greater than one in one million to the most exposed individual.").

[58] Subsequent resampling at each of those facilities shows that the high chromium levels that EPA calculated resulted from sample contamination caused

correct chromium emissions information, no selected EGU would have presented a risk greater than one-in-one million from non-mercury metal HAPs. As a result, even applying §112(c)(9) as the listing criterion, EPA's "appropriate and necessary" finding for other HAP metals lacks factual support.

3. Acid Gas HAPs

EPA's conclusion that it is appropriate and necessary to regulate acid gas HAPs is not premised on public health risk. 76 FR at 25016/3 ("[O]ur case studies did not identify significant chronic non-cancer risks from acid gas emissions.") (JA__). Indeed, EPA's modeling has consistently shown that exposures from EGU acid gas HAP emissions are an order of magnitude or more below EPA's health thresholds defining a safe level of exposure.[59] It is not "appropriate and necessary" to regulate EGU emissions under §112 that pose no health hazard.

In support of its §112(n)(1)(A) finding for acid gases, therefore, EPA cites environmental effects—unquantified acidification effects[60]—and co-benefits from

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by stainless steel fittings used in the sampling trains. UARG, Petition for Reconsideration of MATS Rule at 6-7 (Apr. 16, 2012), EPA-HQ-OAR-2009-0234-20179 (JA__-__). When stainless steel fittings were removed, chromium emissions for those units were one to two orders of magnitude below the levels EPA used in its risk modeling.

[59] *See* UARG Comments at 116 (JA__); Utility Study at 6-1 (JA__); EPA, Supplement to Non-Hg Case Study at 12 & 13, Table 9 (Nov. 2011), EPA-HQ-OAR-2009-0234-19912 (JA__-__).

[60] *See* 77 FR at 9362/1 (JA__).

reducing the criteria pollutant $PM_{2.5}$.[61] Even if §112(n)(1)(A) authorized EPA to regulate EGUs under §112 based solely on environmental impacts, EPA has no rational basis for making an "appropriate and necessary" determination for acid gases. EPA's "evidence" on the environmental impacts of EGU acid gas HAP emissions consists of EPA's general claim that "[i]n areas where the deposition of acids derived from emissions of sulfur and NO_x are causing aquatic and/or terrestrial acidification, with accompanying ecological impacts, the deposition of hydrochloric acid *could exacerbate* these impacts." 76 FR at 25050/3 (emphasis added) (JA__). EPA then references one study on HCl deposition in the United Kingdom, which EPA cites for the proposition that: (a) HCl is highly mobile in the environment, (b) HCl can transport longer distances than previously thought, and (c) HCl *can be* a larger driver of acidification than previously thought. 77 FR at 9362 (JA__). EPA does not even attempt to quantify the impact, if any, of EGU emissions of HCl in the United States and, as a result, cannot point to even a single instance in which EGU HCl emissions have affected acid deposition anywhere or otherwise created an environmental impact. This paucity of analysis is especially striking given that a significant portion of the $9.6 billion in annual costs that EPA

[61] *See* 77 FR at 9306, Table 2 (vast majority of benefits attributable to $PM_{2.5}$ reductions), 9446/2 ("substantial health benefits…from reductions in $PM_{2.5}$") (JA__, __).

would impose on EGUs stems from EPA's decision to regulate acid gas HAPs. *See supra* note 33.

Because EPA's appropriate and necessary finding for acid gases lacks record support, even under EPA's unlawful environmental effects standard, the rule must be vacated.

II. ASSUMING ARGUENDO THAT THE REQUIREMENTS OF §112(d) GOVERN THE VALIDITY OF EPA'S EGU MACT STANDARDS, THOSE STANDARDS ARE UNLAWFUL UNDER §§112(c) AND (d).

As discussed in the foregoing section, the Court should vacate the MACT standards because EPA unlawfully construed and implemented §112(n)(1)(A). If the Court nonetheless finds that EPA's §112(n) interpretations were permissible and its §112(n) findings had record support, the standards should nonetheless be set aside for the reasons discussed below.

A. EPA's EGU MACT Standards Failed To Distinguish Between Major Sources and Area Sources.

CAA §112(d) calls for standards for two statutorily distinct and defined types of sources: "major sources" and "area sources" (i.e., sources that do not emit HAPs above the major source thresholds). Where §112(d) applies, EPA is required to establish MACT standards for all "major sources" in a listed category and (EPA believes) these standards must cover all HAPs emitted by those major sources.

To list and regulate "area sources," "the Administrator [must] find[ ] [that a category or subcategory of area sources] presents a threat of adverse effects… warranting regulation…." §112(c)(3). Without an "area source" listing based on that finding, EPA has no authority to establish any standards under §112(d) for "area sources."[62] With such a finding and listing, EPA must determine which HAPs emitted by "area sources" to regulate and under what regulatory standard (i.e., generally available control technology" ("GACT") or MACT).[63]

In promulgating the EGU MATS standards, EPA ignored each of these "area source" statutory prerequisites to regulation. EPA failed to identify a category or subcategory of EGU "area sources."[64] EPA made no finding that EGU "area source" HAP emissions create hazards "warranting regulation." (EPA's §112(n)(1)(A) findings were based on an evaluation of HAP emissions from *all* EGUs, instead of emissions from only those EGUs that are "area sources.") EPA refused to explain adequately why it rejected adoption of GACT rather than MACT in establishing standards for EGU "area sources." Finally, EPA concluded that *National Lime* required regulation of all HAPs emitted by EGUs, including all

[62] When EPA listed coal- and oil-fired EGUs under §112(c) in 2002, it only listed major sources. It did not include a separate listing of EGU area sources. *See* 67 FR at 6521 (JA__).

[63] *See* Newmont Nevada Energy Investment, LLC, Comments on Proposed MATS Rule at 2-8 (Aug. 4, 2011), EPA-HQ-OAR-2009-0234-17871 (JA__-__).

[64] EPRI estimated that approximately 12% of all coal-fired facilities are area sources. EPRI MATS Rule Comments at 2-31 to 2-33 (JA__-__).

HAPs emitted by EGU "area sources." *National Lime*, however, only addressed an "all HAPs" standard-setting obligation with respect to "major sources." *See e.g.*, 76 FR 15554, 15567/1-3 (Mar. 21, 2011) (JA__).

While each of these departures from the statute would require vacatur of the EGU MACT standards as applied to EGU "area sources," the consequences of EPA's failure to comply with Congress' "area source" directives does not end with EGU "area sources." EPA must establish MACT standards for "major sources" based on the performance, and characteristics, of a population of sources that consists *exclusively* of "major sources." §112(d)(1). Here, EPA established MACT based on a population of EGUs that included *both* "major sources" and "area sources." As a result, the MACT standards, as applied to major sources, are not based on the performance data required by statute and, therefore, must be vacated.

Finally, EPA's assertion that, by specifically defining EGUs in §112(a)(8), Congress intended that EGU MACT standards be established without regard to the distinction between "major" and "area" sources is, at best, an *ipse dixit* without any foundation in logic. *See* 77 FR at 9403/2 (JA__). The definition of EGU gives meaning to language found only in §112(n)(1)(A); there is no reference to EGUs in §112(c) and (d), except to exclude EGUs from coverage of §112(c)(6). As a result, there is no textual support for concluding that the requirements for listing "area

sources" under §112(c)(3) or for MACT standard-setting under §112(d) are different for EGUs (unless, as discussed in above, §112(n)(1)(A) provides the *only* basis for EGU regulation). As this Court noted, "where Congress wished to exempt EGUs from specific requirements of section 112, it said so explicitly." *New Jersey*, 517 F.3d at 582.

B. The Mercury Standard for Existing Sources Is Arbitrary and Capricious.

CAA §112(d)(3)(A) requires EPA to set MACT limits for existing sources at least as stringent as the "average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information)." This minimum level of stringency is commonly called the "MACT floor."

In 2009, EPA concluded that it needed additional EGU HAP emissions data to establish MACT floors. In designing an ICR, EPA had two options in choosing units to conduct stack sampling: (1) it could choose units on a purely random basis, or (2) it could select the presumed 12% of best performing units based on plant configurations and installed pollution control equipment that would result in the lowest emissions of a given HAP. The choice of the first option would require that MACT floors be calculated using a MACT pool comprised of the best performing 12% of units for which EPA had data. The choice of the second option would require MACT floors to be calculated using a larger MACT pool of the best

performing 12% of units in the entire category because the ICR sampling was designed to select the best 12% of the units in the entire industry.

EPA chose the second option when it designed its EGU MACT ICR. As EPA explained to the Office of Management and Budget ("OMB"), EPA chose the 170-175 "best performing" units (out of 1091 units) for each HAP:

> For the Hg and other non-mercury metallic HAP group, EPA believes that units with the newest PM controls installed represent those units meeting the lowest PM emission limits, and, thus, are believed to be among *the top performers with respect to Hg* and other non-mercury metallic HAP emissions. Therefore, EPA has selected 175 units with the newest PM controls installed; of these 175, the newest 170 operating units will be required to conduct Hg and other non-mercury metallic HAP testing.

ICR RTC at 27 (emphasis added) (JA__).[65]

Because the ICR was designed to test only the best performing units in the source category, EPA calculated the MACT floors for non-mercury metal and acid gas HAPs using a MACT pool of 131 units.[66] By contrast, for existing coal-fired EGUs burning high-BTU coals, EPA calculated the MACT floor for mercury emissions using only data from the top 12% of the units for which it had data—40 units, or less than 4% of the industry—even though the ICR required testing by the

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[65] There are 1091 coal-fired EGUs, and the top 175 units comprise about 16% of the industry. EPA selected slightly more than the 12% criterion due to uncertainties in precisely identifying the top 12% and concern that not all of the selected units would be available for testing.

[66] Twelve percent of 1091 coal-fired EGUs is 131. 76 FR at 25023/1 (JA__); 77 FR at 9386/3 (JA__).

top mercury performers. EPA explained its decision to use a smaller pool of data as follows:

> For Hg from coal-fired units, we used the top 12 percent of the data obtained because, even though we required Hg testing for the units testing for the non-Hg metallic HAP, *we did not believe those units represented the top performing 12 percent of sources for Hg in the category at the time we issued the ICR and we made no assertions to that effect.*

76 FR at 25023/1 (emphasis added) (JA__).

This claim is flatly contradicted by EPA's own assertions to OMB when it sought approval of its ICR. It also is plainly contradicted by the facts. For example, the 170 units tested included 73% of all EGUs equipped with activated carbon injection ("ACI")—the most advanced mercury removal technology. Yet, a random selection of EGUs would have required testing by only about 15% of the EGUs equipped with ACI. UARG Comments at 91 (JA__). In addition, an inordinately high percentage of the EGUs chosen for mercury testing were equipped with fabric filters—a technology known to produce lower mercury emissions. EPA selected the best performing units for mercury testing just as it told OMB. *Id*.

The likely reason for EPA's confusion regarding the MACT floor for mercury is the significant, widespread conversion error EPA made in analyzing the ICR mercury emissions data. *See supra* p.20. Based on a 1,000-fold calculational error, EPA erroneously believed that units that were not selected in the ICR testing

phase controlled mercury better than those that were selected. Correcting EPA's conversion error confirms that EPA actually selected the best performing mercury units for ICR sampling. *See* UARG Comments at 90 (JA__).

Nevertheless, in the final rule, EPA stuck to its claim that the ICR testing was not designed to require testing by the top performing units for mercury.[67] As a result, the existing source mercury standard for EGUs burning high-BTU coals is patently unlawful and must be set aside. *See Sierra Club v. EPA*, 167 F.3d 658, 664 (D.C. Cir. 1999) ("[This cursory] exercise highlights the need for additional explanation," for "[w]ith these numbers, EPA's method looks hopelessly irrational.").

C. EPA Arbitrarily and Capriciously Refused To Set Alternative Health-Based Limits Under §112(d)(4) for Acid Gas HAPs.

Congress wrote §112(d)(4) to avoid situations where the mechanical setting of §112(d) MACT limits would result in emission standards more stringent than necessary to protect public health. CAA §112(d)(4) provides:

> 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.

[67] EPA, RTC on Proposed Rule, Vol. 1 at 575 (Dec. 2011), EPA-HQ-OAR-2009-0234-20126 (JA__).

The acid gas HAPs emitted by EGUs are non-carcinogens that have EPA- or state-defined health thresholds known as RfCs.[68] EPA defines an RfC as "an estimate…of a continuous [inhalation] exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effects during a lifetime."[69] Thus, public health is protected with an ample margin of safety when long-term exposures are below the RfC.

EPA and industry modeling has consistently shown that worst case exposures to EGU acid gas HAPs are an order of magnitude or more *below* the RfCs. *See supra* note 59. Yet, EPA refused to set an alternative §112(d)(4) standard, asserting that §112(d)(4) provided EPA unfettered authority to consider other "factors not specifically enumerated" in that subsection when deciding whether to set a §112(d)(4) standard." RTC on Proposed Rule, Vol. 1 at 11 (JA__). EPA then recited general, unquantified concerns about "potential cumulative public health and environmental effects" and $PM_{2.5}$ co-benefits as grounds for refusing to promulgate §112(d)(4) limits. 77 FR at 9405/3 (JA__); *see supra* pp.53-54.

A rule must be set aside where the agency has "relied on factors which Congress has not intended it to consider," or has "offered an explanation for its decision that runs counter to the evidence before the agency." *Motor Vehicle Mfrs.*

[68] *See* UARG Comments at 114 (JA__).
[69] 55 FR 39321, 39321/3 (Sept. 26, 1990) (JA__).

Ass'n, 463 U.S. at 43. Here, there is undisputed evidence that public exposure to acid gas HAP emissions from EGUs were 10% or less of the RfC. If, as EPA argues, EGUs must be regulated like any other source category, then EPA had ample justification for establishing alternative health-based limits under §112(d)(4). EPA abused its discretion by refusing to consider such limits based on unquantified concerns about environmental effects and effects of $PM_{2.5}$.

D. The Startup and Shutdown Work Practice Standards Were Promulgated with Inadequate Notice and Are Arbitrary and Capricious.

EPA proposed numerical emission limitations under §112(d) that would have applied "at all times." 76 FR at 25028/1 (JA__). In the final rule, EPA agreed with commenters that it lacked data sufficient to set emissions standards that apply during periods of unit startup and shutdown. 77 FR at 9381/1-2 (JA__). Instead, EPA promulgated work practice standards for those periods under CAA §112(h), as commenters urged. 40 C.F.R. §63.10042 and Part 63, Subpart UUUUU, Table 3, 77 FR at 9486/3, 9493-94 (JA__, __-__); RTC on Proposed Rule, Vol. 2 at 418-419 (JA__-__). However, rather than use the definitions of "startup" and "shutdown" EPA proposed to apply to the rule (i.e., those in the general provisions at 40 C.F.R. §63.2), or to specify standards consistent with comments it received, EPA promulgated new definitions of "startup" and "shutdown" and more detailed requirements. *See* Joint Brief of Petitioners, *UARG*

v. EPA, No. 12-1166 (D.C. Cir. filed Oct. 23, 2012) at Statement of the Case V.C (describing the final Subpart UUUUU work practice standards and problems with them).

The definitions and standards EPA promulgated do not adequately reflect how EGUs actually start up and shut down their emissions control equipment, or take into account all types of units to which they would apply and the fuels those units can (or have available to) combust.[70] *Id.* Once source-specific characteristics are considered, EPA's startup and shutdown provisions are plainly arbitrary and lack any record support.

Moreover, commenters could not have anticipated the specific details in EPA's final rule, as they were not proposed. EPA's attempts to tie the details of its new definitions and associated requirements to its original notice, and the comments received on it, fail. *Id*. Because the notice EPA provided was not sufficient to support the details of the final work practice standards, they must be vacated and remanded for further notice and comment. *Fertilizer Inst. v. EPA*, 935

[70] For example, the final work practice standards require use of either natural gas or distillate oil for ignition and require engagement of emissions controls when any other fuel is combusted. 40 C.F.R. Part 63, Subpart UUUUU, Table 3, 77 FR at 9493-94 (JA__-__). Petitioners Edgecombe and Spruance operate coal-fired stoker boilers that were not designed with auxiliary burners and, thus, have no startup fuel. Rather, diesel-soaked coal and wood are used to ignite the coal during startup. Neither facility is equipped to burn natural gas or distillate oil, and neither has the internal or external infrastructure to do so. Edgecombe & Spruance Petition for Reconsideration at 4 (Apr. 27, 2012), EPA-HQ-OAR-2009-0234-20194 (JA__).

F.2d 1303, 1311 (D.C. Cir. 1991) (requiring a new round of notice-and-comment rulemaking if it would provide commenters with "their first occasion to offer new and different criticisms which the agency might find convincing")(internal quotation marks omitted); *see also Small Refiner Lead Phase-Down Task Force v. EPA,* 705 F.2d 506, 549 (D.C. Cir. 1983) (describing the more exacting notice requirements of §307(d)).

E. EPA's Denial of UARG's Delisting Petition Was Unlawful.

EPA relies on the same flawed factual bases to deny UARG's §112(c)(9) petition to delist coal-fired EGUs from the §112(c) list of major source categories as EPA does in making its "appropriate and necessary" determination. *See* 77 FR at 9364-66 (JA__-__); *supra* Argument I.C. EPA's summary denial does not follow its own memorandum discussing the delisting process,[71] and was issued without any prior notice or opportunity for public comment.

EPA also appears to deny UARG's delisting petition on the grounds that the petition was deficient because UARG only sought to delist coal-fired EGUs and not oil-fired units. *Id.* at 9364/2 (JA__). This reason for denial must fail. CAA §112(n)(1)(A) requires EPA to evaluate all "fossil-fuel-fired" EGUs to determine if further regulation is appropriate and necessary. EPA's Utility Study and

[71] Memorandum from Sally Shaver, EPA, to Potential Petitioners Seeking Delisting of HAPs or Source Categories, Information on EPA's Delisting Process (undated) (JA__).

subsequent December 2000 regulatory determination divided the universe of "fossil-fuel fired" EGUs into three categories: coal-fired, oil-fired, and gas-fired. In 2000, EPA decided not to regulate gas-fired EGUs but to regulate coal- and oil-fired EGUs under §112(d) for different factual reasons. 65 FR at 79831/1 (JA__). Just as EPA can decide not to regulate gas-fired EGUs it can also legally decide not to regulate coal-fired EGUs. For these reasons, the Court should reject EPA's factual and legal claims and return UARG's delisting petition to EPA for further consideration.

CONCLUSION

For the foregoing reasons, the Court should vacate the MATS rule.

Dated: October 23, 2012

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CERTIFICATE OF COMPLIANCE

Pursuant to Rule 32(a)(7)(C) of the Federal Rules of Appellate Procedure and Circuit Rules 32(a)(1) and 32(a)(2)(C), I hereby certify that the foregoing Joint Brief of State, Industry, and Labor Petitioners contains 14,879 words, as counted by a word processing system that includes headings, footnotes, quotations, and citations in the count, and therefore is within the word limit set by the Court.

Dated: October 23, 2012 /s/ F. William Brownell

CERTIFICATE OF SERVICE

I hereby certify that, on this 23rd day of October 2012, a copy of the Joint Brief of State, Industry, and Labor Petitioners was served electronically through the Court's CM/ECF system on all ECF-registered counsel.

/s/ F. William Brownell

Statutory and Regulatory Addendum

TABLE OF CONTENTS

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

AMENDMENTS

1977—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

CAA § 101

(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

Section 711(b) of Pub. L. 101–549 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

Section 406 of Pub. L. 95–95, 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]

(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

CAA § 108

(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) of this section, 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) of this section, 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;

(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 bicy-

[1] See Codification note below.

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.''

CAA § 110

§ 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 nec-

essary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D of this subchapter;

(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 of this subchapter 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 of this subchapter (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 of this subchapter (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 of this chapter; 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 pub-

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

Section 16 of Pub. L. 91–604 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

CAA § 111

(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 emitted 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) of this section, 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] of this section 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 sub-

[1] See References in Text note below.

mitted under this paragraph to take into consideration, among other factors, the remaining useful 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) of this section 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) of this section 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) of this section 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) of this section, the Administrator shall revise the list under subsection (b)(1)(A) of this section 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) of this section 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) of this section 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 consider-

ation 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

Section 403(b), (c) of Pub. L. 101–549 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.

§ 7412. Hazardous air pollutants

CAA § 112

(a) Definitions

For purposes of this section, except subsection (r) of this section—

(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 of this chapter.

(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) of this section.

(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
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

[1] See References in Text note below.

CAS number	Chemical name
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]
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) of this section 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) of this section applicable to any source category or subcategory of a listed hazardous air pollutant without a CAS number listed under subsection (b) of this section 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 of this subchapter (prevention of significant deterioration) shall not apply to pollutants listed under this section.

(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

[2] So in original. Probably should be ''effects''.

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) of this section. 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 of this subchapter. 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) of this section, according to the schedule in this subsection and subsection (e) of this section.

(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) of this section, 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) of this section 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) of this section. 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) of this section.

(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) of this section in accordance with the schedules provided in subsections (c) and (e) of this section. 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) of this section 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) of this section, 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) of this section, the Administrator may, in lieu of the authorities provided in paragraph (2) and subsection (f) of this section, 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 of this subchapter, 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) of this section, 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) of this section, 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) of this section in accordance with subsection (i)(8) of this section, 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) of this section, 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) of this section 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) of this section, 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) of this section 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) of this section or listing a source category or subcategory under subsection (c) of this section 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) of this section 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) of this section;

(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) of this section, 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) of this section 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) of this section for each source category or subcategory concerned. In the case of categories or subcategories for which standards under subsection (d) of this section 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) of this section 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) of this section and for which an emission standard is promulgated pursuant to subsection (d)(5) of this section.

(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) of this section 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 of this chapter 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 of this chapter 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) of this section. 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 limita-

tion will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction 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) of this section, 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 of this chapter) 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 of this chapter) may issue a permit that grants an extension permitting an existing source up to 1 additional year to comply with standards under subsection (d) of this section 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) of this section.

(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 of this chapter) 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) of this section 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) of this section 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 of this chapter an enforceable emission 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) of this section and the Administrator shall, for the purpose of determining whether a standard under subsection (f) of this section 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) of this section but before the date an emission standard applicable to such source is proposed pursuant to subsection (f) of this section shall not be required to comply with the emission standard under subsection (f) of this section 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) of this section, 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) of this section 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) of this section 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) of this section 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) of this section 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) of this section.

(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) of this section 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 of this chapter 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) of this section, and beginning 18 months after such date (but not prior to the effective date of a permit program under subchapter V of this chapter), 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 of this chapter 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) of this section. 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) of this section. For purposes of the preceding sentence, the reduction required by subsection (i)(5)(A) of this section shall be achieved by the date on which the relevant standard should have been promulgated under subsection (d) of this section. 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) of this section.

(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) of this section. If the Administrator promulgates a standard under subsection (d) of this section 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 Admin-

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) of this section 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 signifi-

cant 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) of this section.

(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) of this section, 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) of this section, 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

[3] So in original. Probably should be ''section''.

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, 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

CAA § 115

(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 emit-

ted 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) of this section. 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) of this section'' 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).

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.

CAA § 211

§ 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) of this section; 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).

[1] So in original. Probably should be ''the''.

(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) of this section 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) of this section 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) of this section.

(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. Notwithstanding 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) of this section; 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.

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.

CAA § 304

§ 7604. Citizen suits

(a) Authority to bring civil action; jurisdiction

Except as provided in subsection (b) of this section, 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 of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (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) of this section shall be provided 180 days before commencing such action.

(b) Notice

No action may be commenced—

(1) under subsection (a)(1) of this section—

(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) of this section 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

[1] So in original. The period probably should be ‘‘, or’’.

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) involve 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

CAA § 307

(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 dis-

[1] See References in Text note below.

[2] So in original. Probably should be ''this''.

[3] So in original.

closed 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 of this chapter) 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 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,

[4] So in original. Probably should be ''subsection,''.

[5] So in original. The word ''to'' probably should not appear.

(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 of this chapter (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 of this chapter (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I of this chapter (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 of this chapter,

(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 of this chapter (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 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) of this section). 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) of this section) 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.)

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 of this chapter, 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.

[6] So in original. Probably should be ''sections''.

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 of this chapter'' for ''part B of subchapter I of this chapter'', 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).

Public Law 91-604

December 31, 1970
[H. R. 17255]

AN ACT

To amend the Clean Air Act to provide for a more effective program to improve the quality of the Nation's air.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Clean Air Amendments of 1970".

Clean Air Amendments of 1970.

RESEARCH

SEC. 2. (a) Section 103 of the Clean Air Act (42 U.S.C. 1857, et seq.) is amended by adding at the end thereof the following new subsection:

81 Stat. 486.
42 USC 1857b.

"(f)(1) In carrying out research pursuant to this Act, the Administrator shall give special emphasis to research on the short- and long-term effects of air pollutants on public health and welfare. In the furtherance of such research, he shall conduct an accelerated research program—

"(A) to improve knowledge of the contribution of air pollutants to the occurrence of adverse effects on health, including, but not limited to, behavioral, physiological, toxicological, and biochemical effects; and

"(B) to improve knowledge of the short- and long-term effects of air pollutants on welfare.

"(2) In carrying out the provisions of this subsection the Administrator may—

"(A) conduct epidemiological studies of the effects of air pollutants on mortality and morbidity;

"(B) conduct clinical and laboratory studies on the immunologic, biochemical, physiological, and the toxicological effects including carcinogenic, teratogenic, and mutagenic effects of air pollutants;

"(C) utilize, on a reimbursable basis, the facilities of existing Federal scientific laboratories and research centers;

"(D) utilize the authority contained in paragraphs (1) through (4) of subsection (b); and

"(E) consult with other appropriate Federal agencies to assure that research or studies conducted pursuant to this subsection will be coordinated with research and studies of such other Federal agencies.

"(3) In entering into contracts under this subsection, the Administrator is authorized to contract for a term not to exceed 10 years in duration. For the purposes of this paragraph, there are authorized to be appropriated $15,000,000. Such amounts as are appropriated shall remain available until expended and shall be in addition to any other appropriations under this Act."

Appropriation.

42 USC 1857b-1.

(b) Section 104(a)(1) of the Clean Air Act is amended to read as follows:

"(1) conduct and accelerate research programs directed toward development of improved, low-cost 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."

"NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

"SEC. 112. (a) For purposes of this section— Definitions.

"(1) The term 'hazardous air pollutant' means an air pollutant to which no ambient air quality standard is applicable and which in the judgment of the Administrator may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

"(2) The term 'new source' means a stationary source the construction or modification of which is commenced after the Administrator proposes regulations under this section establishing an emission standard which will be applicable to such source.

"(3) The terms 'stationary source', 'modification', 'owner or operator' and 'existing source' shall have the same meaning as such terms have under section 111(a). *Ante*, p. 1683.

"(b)(1)(A) The Administrator shall, within 90 days after the date of enactment of the Clean Air Amendments of 1970, publish (and shall from time to time thereafter revise) a list which includes each hazardous air pollutant for which he intends to establish an emission standard under this section. List, publication.

"(B) Within 180 days after the inclusion of any air pollutant in such list, the Administrator shall publish proposed regulations establishing emission standards for such pollutant together with a notice of a public hearing within thirty days. Not later than 180 days after such publication, the Administrator shall prescribe an emission standard for such pollutant, unless he finds, on the basis of information presented at such hearings, that such pollutant clearly is not a hazardous air pollutant. The Administrator shall establish any such standard at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant. Proposed regulations; hearing.

"(C) Any emission standard established pursuant to this section shall become effective upon promulgation.

"(2) The Administrator shall, from time to time, issue information on pollution control techniques for air pollutants subject to the provisions of this section.

"(c)(1) After the effective date of any emission standard under this section—

"(A) no person may construct any new source or modify any existing source which, in the Administrator's judgment, will emit an air pollutant to which such standard applies unless the Administrator finds that such source if properly operated will not cause emissions in violation of such standard, and

"(B) no air pollutant to which such standard applies may be emitted from any stationary source in violation of such standard, except that in the case of an existing source—

"(i) such standard shall not apply until 90 days after its effective date, and

"(ii) the Administrator may grant a waiver permitting such source a period of up to two years after the effective date of a standard to comply with the standard, if he 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.

"(2) The President may exempt any stationary source from compliance with paragraph (1) for a period of not more than two years if he finds that the technology to implement such standards is not available and the operation of such source is required for reasons of national security. An exemption under this paragraph may be extended Presidential exemption. Extension.

Where:

PS_{SO_2} = Prorated standard for S_{O2} when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels or from all fossil fuels and wood residue fired;
y = Percentage of total heat input derived from liquid fossil fuel; and
z = Percentage of total heat input derived from solid fossil fuel.

(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

(d) As an alternate to meeting the requirements of paragraphs (a) and (b) of this section, an owner or operator can petition the Administrator (in writing) to comply with § 60.43Da(i)(3) of subpart Da of this part or comply with § 60.42b(k)(4) of subpart Db of this part, as applicable to the affected source. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in § 60.43Da(i)(3) of subpart Da of this part or § 60.42b(k)(4) of subpart Db of this part, as applicable to the affected source.

(e) Units 1 and 2 (as defined in appendix G of this part) at the Newton Power Station owned or operated by the Central Illinois Public Service Company will be in compliance with paragraph (a)(2) of this section if Unit 1 and Unit 2 individually comply with paragraph (a)(2) of this section or if the combined emission rate from Units 1 and 2 does not exceed 470 ng/J (1.1 lb/MMBtu) combined heat input to Units 1 and 2.

[60 FR 65415, Dec. 19, 1995, as amended at 74 FR 5077, Jan. 28, 2009]

§ 60.44 Standard for nitrogen oxides (NO_X).

(a) Except as provided under paragraph (e) of this section, on and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain NO_X, expressed as NO_2 in excess of:

(1) 86 ng/J heat input (0.20 lb/MMBtu) derived from gaseous fossil fuel.

(2) 129 ng/J heat input (0.30 lb/MMBtu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue.

(3) 300 ng/J heat input (0.70 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse).

(4) 260 ng/J heat input (0.60 lb MMBtu) derived from lignite or lignite and wood residue (except as provided under paragraph (a)(5) of this section).

(5) 340 ng/J heat input (0.80 lb MMBtu) derived from lignite which is mined in North Dakota, South Dakota, or Montana and which is burned in a cyclone-fired unit.

(b) Except as provided under paragraphs (c), (d), and (e) of this section, when different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NO_X} = \frac{w\,(260) + x\,(86) + y\,(130) + z\,(300)}{(w + x + y + z)}$$

Where:

PS_{NOX} = Prorated standard for NO_X when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;
w = Percentage of total heat input derived from lignite;
x = Percentage of total heat input derived from gaseous fossil fuel;
y = Percentage of total heat input derived from liquid fossil fuel; and
z = Percentage of total heat input derived from solid fossil fuel (except lignite).

(c) When a fossil fuel containing at least 25 percent, by weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, the standard for NO_X does not apply.

(d) Except as provided under paragraph (e) of this section, cyclone-fired units which burn fuels containing at least 25 percent of lignite that is mined in North Dakota, South Dakota, or Montana remain subject to paragraph (a)(5) of this section regardless of the types of fuel combusted in combination with that lignite.

(e) As an alternate to meeting the requirements of paragraphs (a), (b), and (d) of this section, an owner or operator can petition the Administrator (in writing) to comply with § 60.44Da(e)(3) of subpart Da of this part. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in § 60.44Da(e)(3) of subpart Da of this part.

§ 60.45 Emissions and fuel monitoring.

(a) Each owner or operator shall install, calibrate, maintain, and operate continuous opacity monitoring system (COMS) for measuring opacity and a CEMS for measuring SO_2 emissions, NO_X emissions, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in paragraph (b) of this section.

(b) Certain of the CEMS requirements under paragraph (a) of this section do not apply to owners or operators under the following conditions:

(1) For a fossil-fuel-fired steam generator that burns only gaseous or liquid fossil fuel (excluding residual oil) with potential SO_2 emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and that does not use post-combustion technology to reduce emissions of SO_2 or PM, CEMS for measuring the opacity of emissions and SO2 emissions are not required if the owner or operator monitors SO_2 emissions by fuel sampling and analysis or fuel receipts.

(2) For a fossil-fuel-fired steam generator that does not use a flue gas desulfurization device, a CEMS for measuring SO_2 emissions is not required if the owner or operator monitors SO_2 emissions by fuel sampling and analysis.

(3) Notwithstanding § 60.13(b), installation of a CEMS for NO_X may be delayed until after the initial performance tests under § 60.8 have been conducted. If the owner or operator demonstrates during the performance test that emissions of NO_X are less than 70 percent of the applicable standards in § 60.44, a CEMS for measuring NO_X emissions is not required. If the initial performance test results show that NO_X emissions are greater than 70 percent of the applicable standard, the owner or operator shall install a CEMS for NO_X within one year after the date of the initial performance tests under § 60.8 and comply with all other applicable monitoring requirements under this part.

(4) If an owner or operator does not install any CEMS for sulfur oxides and NO_X, as provided under paragraphs (b)(1) and (b)(3) or paragraphs (b)(2) and (b)(3) of this section a CEMS for measuring either O_2 or CO_2 is not required.

(5) An owner or operator may petition the Administrator (in writing) to install a PM CEMS as an alternative to the CEMS for monitoring opacity emissions.

(6) A CEMS for measuring the opacity of emissions is not required for a fossil fuel-fired steam generator that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected source are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis. Owners and operators of affected sources electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (b)(6)(i) through (iv) of this section.

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (b)(6)(i)(A) through (D) of this section.

(A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16595, Apr. 5, 2002]

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101–549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the ''affected source,'' as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term ''affected source,'' as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of ''affected source,'' and the procedures for adopting an alternative definition of ''affected source,'' shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that

is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction 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 or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means: (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the

Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not ''federally enforceable'' by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise ''federally enforceable'';

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Force majeure means, for purposes of § 63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

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, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance—the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques—the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures,

and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency—the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time—the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of ''new affected source,'' and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term ''new affected source,'' which will be the same as the ''affected source'' unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified

in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means: (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101–13109). The definition is as follows:

(1) *Source reduction* is any practice that:

(i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and

(ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant

to section 112 of the Act includes subpart A of this part, as provided by §63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: ''responsible official'' shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at *www.epa.gov/PerformanceTrack*) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

Standard conditions means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has

obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16596, Apr. 5, 2002; 68 FR 32600, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 72 FR 27443, May 16, 2007]

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere
g = gram
Hz = hertz
J = joule
°K = degree Kelvin
kg = kilogram
l = liter
m = meter
m^3 = cubic meter
mg = milligram = 10^{-3} gram
ml = milliliter = 10^{-3} liter
mm = millimeter = 10^{-3} meter
Mg = megagram = 10^6 gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10^{-9} gram
nm = nanometer = 10^{-9} meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
µg = microgram = 10^{-6} gram
µl = microliter = 10^{-6} liter

(b) *Other units of measure:*

Btu = British thermal unit
°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F degree Fahrenheit
ft = feet
ft^2 = square feet
ft^3 = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H_2O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
scmm = cubic meter at standard conditions per minute
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd^2 = square yards
yr = year

(c) *Miscellaneous:*

act = actual
avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

§ 63.4 Prohibited activities and circumvention.

(a) *Prohibited activities.* (1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

as the performance test method (see definition of ''test method'' in §63.2.

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major change to recordkeeping and reporting under §63.10(e) and as defined in §63.90.

§63.10042 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA), in §63.2 (the General Provisions), and in this section as follows:

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Anthracite coal means solid fossil fuel classified as anthracite coal by American Society of Testing and Materials (ASTM) Method D388–05, ''Standard Classification of Coals by Rank'' (incorporated by reference, see §63.14).

Bituminous coal means coal that is classified as bituminous according to ASTM Method D388–05, ''Standard Classification of Coals by Rank'' (incorporated by reference, see §63.14).

Boiler operating day means a 24-hour period between midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for the fuel to be combusted the entire 24-hour period.

Capacity factor for a liquid oil-fired EGU means the total annual heat input from oil divided by the product of maximum hourly heat input for the EGU, regardless of fuel, multiplied by 8,760 hours.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM Method D388–05, ''Standard Classification of Coals by Rank'' (incorporated by reference, see §63.14), and coal refuse. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, coal derived gases (not meeting the definition of natural gas), solvent-refined coal, coal-oil mixtures, and coal-water mixtures, are considered ''coal'' for the purposes of this subpart.

Coal-fired electric utility steam generating unit means an electric utility steam generating unit meeting the definition of ''fossil fuel-fired'' that burns coal for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

Coal refuse means any by-product of coal mining, physical coal cleaning, and coal preparation operations (e.g., culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Cogeneration means a steam-generating unit that simultaneously produces both electrical and useful thermal (or mechanical) energy from the same primary energy source.

Cogeneration unit means a stationary, fossil fuel-fired EGU meeting the definition of ''fossil fuel-fired'' or stationary, integrated gasification combined cycle:

(1) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and

(2) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:

(i) For a topping-cycle cogeneration unit,

(A) Useful thermal energy not less than 5 percent of total energy output; and

(B) Useful power that, when added to one-half of useful thermal energy produced, is not less than 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.

(ii) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.

(3) Provided that the total energy input under paragraphs (2)(i)(B) and (2)(ii) of this definition shall equal the unit's total energy input from all fuel except biomass if the unit is a boiler.

Combined-cycle gas stationary combustion turbine means a stationary combustion turbine system where heat from the turbine exhaust gases is recovered by a waste heat boiler.

Common stack means the exhaust of emissions from two or more affected units through a single flue.

Continental liquid oil-fired subcategory means any oil-fired electric utility steam generating unit that burns liquid oil and is located in the continental United States.

Deviation. (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, work practice standard, or monitoring requirement; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM Method D396–10, ''Standard Specification for Fuel Oils'' (incorporated by reference, see § 63.14).

Dry flue gas desulfurization technology, or *dry FGD*, or *spray dryer absorber* (*SDA*), or *spray dryer*, or *dry scrubber* means an add-on air pollution control system located downstream of the steam generating unit that injects a dry alkaline sorbent (dry sorbent injection) or sprays an alkaline sorbent slurry (spray dryer) to react with and neutralize acid gases such as SO_2 and HCl in the exhaust stream forming a dry powder material. Alkaline sorbent injection systems in fluidized bed combustors (FBC) or circulating fluidized bed (CFB) boilers are included in this definition.

Dry sorbent injection (DSI) means an add-on air pollution control system in which sorbent (e.g., conventional activated carbon, brominated activated carbon, Trona, hydrated lime, sodium carbonate, etc.) is injected into the flue gas steam upstream of a PM control device to react with and neutralize acid gases (such as SO_2 and HCl) or Hg in the exhaust stream forming a dry powder material that may be removed in a primary or secondary PM control device.

Electric Steam generating unit means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with integrated gasification combined cycle gas turbines; nuclear steam generators are not included) for the purpose of powering a generator to produce electricity or electricity and other thermal energy.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Emission limitation means any emissions limit, work practice standard, or operating limit.

Excess emissions means, with respect to this subpart, results of any required measurements outside the applicable range (e.g., emissions limitations, parametric operating limits) that is permitted by this subpart. The values of measurements will be in the same units and averaging time as the values specified in this subpart for the limitations.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60, 61, and 63; requirements within any

applicable state implementation plan; and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Flue gas desulfurization system means any add-on air pollution control system located downstream of the steam generating unit whose purpose or effect is to remove at least 50 percent of the SO_2 in the exhaust gas stream.

Fossil fuel means natural gas, oil, coal, and any form of solid, liquid, or gaseous fuel derived from such material.

Fossil fuel-fired means an electric utility steam generating unit (EGU) that is capable of combusting more than 25 MW of fossil fuels. To be ''capable of combusting'' fossil fuels, an EGU would need to have these fuels allowed in its operating permit and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired means any EGU that fired fossil fuels for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after the applicable compliance date.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, and residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Fluidized bed boiler, or *fluidized bed combustor*, or *circulating fluidized boiler*, or *CFB* means a boiler utilizing a fluidized bed combustion process.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles which are maintained in a mobile suspension by the upward flow of air and combustion products.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, solid oil-derived gas, refinery gas, and biogas.

Generator means a device that produces electricity.

Gross output means the gross useful work performed by the steam generated and, for an IGCC electric utility steam generating unit, the work performed by the stationary combustion turbines. For a unit generating only electricity, the gross useful work performed is the gross electrical output from the unit's turbine/generator sets. For a cogeneration unit, the gross useful work performed is the gross electrical output, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls), or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (*i.e.*, steam delivered to an industrial process).

Heat input means heat derived from combustion of fuel in an EGU (synthetic gas for an IGCC) and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, etc.

Integrated gasification combined cycle electric utility steam generating unit or *IGCC* means an electric utility steam generating unit meeting the definition of ''fossil fuel-fired'' that burns a synthetic gas derived from coal and/or solid oil-derived fuel for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year in a combined-cycle gas turbine. No solid coal or solid oil-derived fuel is directly burned in the unit during operation.

ISO conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite coal means coal that is classified as lignite A or B according to ASTM Method D388–05, ''Standard Classification of Coals by Rank'' (incorporated by reference, see §63.14).

Limited-use liquid oil-fired subcategory means an oil-fired electric utility

steam generating unit with an annual capacity factor of less than 8 percent of its maximum or nameplate heat input, whichever is greater, averaged over a 24-month block contiguous period commencing April 16, 2015.

Liquid fuel includes, but is not limited to, distillate oil and residual oil.

Monitoring system malfunction or out of control period means any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 Btu per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

Natural gas-fired electric utility steam generating unit means an electric utility steam generating unit meeting the definition of ''fossil fuel-fired'' that is not a coal-fired, oil-fired, or IGCC electric utility steam generating unit and that burns natural gas for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

Net-electric output means the gross electric sales to the utility power distribution system minus purchased power on a calendar year basis.

Non-continental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Non-continental liquid oil-fired subcategory means any oil-fired electric utility steam generating unit that burns liquid oil and is located outside the continental United States.

Non-mercury (Hg) HAP metals means Antimony (Sb), Arsenic (As), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Manganese (Mn), Nickel (Ni), and Selenium (Se).

Oil means crude oil or petroleum or a fuel derived from crude oil or petroleum, including distillate and residual oil, solid oil-derived fuel (e.g., petroleum coke) and gases derived from solid oil-derived fuels (not meeting the definition of natural gas).

Oil-fired electric utility steam generating unit means an electric utility steam generating unit meeting the definition of ''fossil fuel-fired'' that is not a coal-fired electric utility steam generating unit and that burns oil for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

Particulate matter or *PM* means any finely divided solid material as measured by the test methods specified under this subpart, or an alternative method.

Pulverized coal (PC) boiler means an EGU in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the EGU where it is fired in suspension.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by ASTM Method D396–10, ''Standard Specification for Fuel Oils'' (incorporated by reference, see § 63.14).

Responsible official means responsible official as defined in 40 CFR 70.2.

Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use), or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler.

Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing

of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use).

Stationary combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, the combustion turbine portion of any stationary cogeneration cycle combustion system, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. Stationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function. Stationary combustion turbines do not include turbines located at a research or laboratory facility, if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility.

Steam generating unit means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with integrated gasification combined cycle gas turbines; nuclear steam generators are not included).

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit undergrate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. There are two general types of stokers: underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers.

Subbituminous coal means coal that is classified as subbituminous A, B, or C according to ASTM Method D388–05, ''Standard Classification of Coals by Rank'' (incorporated by reference, see §63.14).

Unit designed for coal > 8,300 Btu/lb subcategory means any coal-fired EGU that is not a coal-fired EGU in the ''unit designed for low rank virgin coal'' subcategory.

Unit designed for low rank virgin coal subcategory means any coal-fired EGU that is designed to burn and that is burning nonagglomerating virgin coal having a calorific value (moist, mineral matter-free basis) of less than 19,305 kJ/kg (8,300 Btu/lb) that is constructed and operates at or near the mine that produces such coal.

Unit designed to burn solid oil-derived fuel subcategory means any oil-fired EGU that burns solid oil-derived fuel.

Voluntary consensus standards or VCS mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards (VDI). The types of standards that are not considered VCS are standards developed by: the U.S. states, e.g., California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within an EPA rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-VCS methods.

Wet flue gas desulfurization technology, or *wet FGD, or wet scrubber* means any add-on air pollution control device that is located downstream of the steam generating unit that mixes an aqueous stream or slurry with the exhaust gases from an EGU to control emissions of PM and/or to absorb and neutralize acid gases, such as SO_2 and HCl.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, which is promulgated pursuant to CAA section 112(h).

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23405, Apr. 19, 2012]

TABLE 1 TO SUBPART UUUUU OF PART 63—EMISSION LIMITS FOR NEW OR RECONSTRUCTED EGUS

As stated in §63.9991, you must comply with the following applicable emission limits:

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table . . .
1. Coal-fired unit not low rank virgin coal.	a. Filterable particulate matter (PM).	7.0E–3 lb/MWh[1]	Collect a minimum of 4 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	6.0E–2 lb/GWh	Collect a minimum of 4 dscm per run.
	OR	OR	
	individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E–3 lb/GW.	
	Arsenic (As)	3.0E–3 lb/GWh.	
	Beryllium (Be)	6.0E–4 lb/GWh.	
	Cadmium (Cd)	4.0E–4 lb/GWh.	
	Chromium (Cr)	7.0E–3 lb/GWh.	
	Cobalt (Co)	2.0E–3 lb/GWh.	
	Lead (Pb)	2.0E–3 lb/GWh.	
	Manganese (Mn)	4.0E–3 lb/GWh.	
	Nickel (Ni)	4.0E–2 lb/GWh.	
	Selenium (Se)	6.0E–3 lb/GWh.	
	b. Hydrogen chloride (HC1)	4.0E–4 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348–03[2] or Method 320, sample for a minimum of 1 hour.
	OR.		
	Sulfur dioxide (SO_2)[3]	4.0E–1 lb/MWh	SO_2 CEMS.
	c. Mercury (Hg)	2.0E–4 lb/GWh	Hg CEMS or sorbent trap monitoring system only.
2. Coal-fired units low rank virgin coal.	a. Filterable particulate matter (PM).	7.0E–3 lb/MWh[1]	Collect a minimum of 4 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	6.0E–2 lb/GWh	Collect a minimum of 4 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E–3 lb/GWh.	
	Arsenic (As)	3.0E–3 lb/GWh.	
	Beryllium (Be)	6.0E–4 lb/GWh.	
	Cadmium (Cd)	4.0E–4 lb/GWh.	
	Chromium (Cr)	7.0E–3 lb/GWh.	
	Cobalt (Co)	2.0E–3 lb/GWh.	
	Lead (Pb)	2.0E–3 lb/GWh.	
	Manganese (Mn)	4.0E–3 lb/GWh.	
	Nickel (Ni)	4.0E–2 lb/GWh.	
	Selenium (Se)	6.0E–3 lb/GWh.	
	b. Hydrogen chloride (HCl)	4.0E–4 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348–03[2] or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO_2)[3]	4.0E–1 lb/MWh	SO_2 CEMS.

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 . . .
	Selenium (Se)	1.2E0 lb/TBtu or 2.0E–2 lb/GWh.	
	b. Hydrogen chloride (HCl)	5.0E–3 lb/MMBtu or 8.0E–2 lb/MWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348–03[3] or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO_2)[4]	3.0E–1 lb/MMBtu or 2.0E0 lb/MWh.	SO_2 CEMS.
	c. Mercury (Hg)	2.0E–1 lb/TBtu or 2.0E–3 lb/GWh.	LEE Testing for 30 days with 10 days maximum per Method 30B run or Hg CEMS or Sorbent trap monitoring system only.

[1] For LEE emissions testing for total PM, total HAP metals, individual HAP metals, HCl, and HF, the required minimum sampling volume must be increased nominally by a factor of two.
[2] Gross electric output.
[3] Incorporated by reference, see §63.14.
[4] You may not use the alternate SO_2 limit if your EGU does not have some form of FGD system and SO_2 CEMS installed.

[77 FR 23405, Apr. 19, 2012]

TABLE 3 TO SUBPART UUUUU OF PART 63—WORK PRACTICE STANDARDS

As stated in §§63.9991, you must comply with the following applicable work practice standards:

If your EGU is . . .	You must meet the following . . .
1. An existing EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
2. A new or reconstructed EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
3. A coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU during startup.	You must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels, either natural gas or distillate oil or a combination of clean fuels for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown in this subpart. You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.10011(g) and §63.10021(h) and (i).

If your EGU is . . .	You must meet the following . . .
4. A coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU during shutdown.	You must operate all CMS during shutdown. Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use) or at the point of no fuel being fired in the boiler. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler. During shutdown, you must operate all applicable control technologies while firing coal, residual oil, or solid oil-derived fuel. You must comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown in this subpart. You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.10011(g) and §63.10021(h) and (i).

TABLE 4 TO SUBPART UUUUU OF PART 63—OPERATING LIMITS FOR EGUS

As stated in §63.9991, you must comply with the applicable operating limits:

If you demonstrate compliance using . . .	You must meet these operating limits . . .
1. PM CPMS	Maintain the 30-boiler operating day rolling average PM CPMS output at or below the highest 1-hour average measured during the most recent performance test demonstrating compliance with the filterable PM, total non-mercury HAP metals (total HAP metals, for liquid oil-fired units), or individual non-mercury HAP metals (individual HAP metals including Hg, for liquid oil-fired units) emissions limitation(s).

TABLE 5 TO SUBPART UUUUU OF PART 63—PERFORMANCE TESTING REQUIREMENTS

As stated in §63.10007, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources: [1]

To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using [2] . . .
1. Filterable Particulate matter (PM).	Emissions Testing	a. Select sampling ports location and the number of traverse points.	Method 1 at Appendix A–1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2A, 2C, 2F, 2G or 2H at Appendix A–1 or A–2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B at Appendix A–2 to part 60 of this chapter, or ANSI/ASME PTC 19.10–1981.[3]
		d. Measure the moisture content of the stack gas.	Method 4 at Appendix A–3 to part 60 of this chapter.
		e. Measure the filterable PM concentration.	Method 5 at Appendix A–3 to part 60 of this chapter. For positive pressure fabric filters, Method 5D at Appendix A–3 to part 60 of this chapter for filterable PM emissions. Note that the Method 5 front half temperature shall be 160 ° ± 14 °C (320 ° ± 25 °F).
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates.	Method 19 F-factor methodology at Appendix A–7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
	OR	OR	
	PM CEMS	a. Install, certify, operate, and maintain the PM CEMS.	Performance Specification 11 at Appendix B to part 60 of this chapter and Procedure 2 at Appendix F to Part 60 of this chapter.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems.	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).