

ORAL ARGUMENT NOT YET SCHEDULED

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No. 15-1381 (and consolidated cases)

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

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STATE OF NORTH DAKOTA, *et al.*,

*Petitioners,*

v.

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

*Respondents.*

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**On Petition for Review of Final Agency Actions of the  
United States Environmental Protection Agency  
80 Fed. Reg. 64,510 (Oct. 23, 2015) and  
81 Fed. Reg. 27,442 (May 6, 2016)**

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**STATE PETITIONERS' OPENING BRIEF**

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**CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES**

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

**A. Parties, Intervenors, and *Amici Curiae***

These cases involve the following parties:

**Petitioners:**

No. 15-1381: State of North Dakota.

No. 15-1396: Murray Energy Corporation.

No. 15-1397: Energy & Environment Legal Institute.

No. 15-1399: State of West Virginia; State of Alabama; State of Arizona

Corporation Commission; State of Arkansas; State of Florida; State of Georgia; State of Indiana; State of Kansas; Commonwealth of Kentucky; State of Louisiana; State of Louisiana Department of Environmental Quality; Attorney General Bill Schuette, People of Michigan; State of Missouri; State of Montana; State of Nebraska; The North Carolina Department of Environmental Quality; State of Ohio; State of Oklahoma; State of South Carolina; State of South Dakota; State of Texas; State of Utah; State of Wisconsin; and State of Wyoming.

No. 15-1434: International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers, AFL-CIO.

No. 15-1438: Peabody Energy Corporation.

No. 15-1448: Utility Air Regulatory Group and American Public Power Association.



No. 15-1456: National Mining Association.

No. 15-1458: Indiana Utility Group.

No. 15-1463: United Mine Workers of America, AFL-CIO.

No. 15-1468: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; and Southern Power Company.

No. 15-1469: Chamber of Commerce of the United States of America; National Association of Manufacturers; American Fuel & Petrochemical Manufacturers; National Federation of Independent Business; American Chemistry Council; American Coke and Coal Chemicals Institute; American Foundry Society; American Forest & Paper Association; American Iron and Steel Institute; American Wood Council; Brick Industry Association; Electricity Consumers Resource Council; National Lime Association; National Oilseed Processors Association; and Portland Cement Association.

No. 15-1481: American Coalition for Clean Coal Electricity.

No. 15-1482: Luminant Generation Company LLC; Oak Grove Management Company LLC; Big Brown Power Company LLC; Sandow Power Company LLC; Big Brown Lignite Company LLC; Luminant Mining Company LLC; and Luminant Big Brown Mining Company LLC.

No. 15-1484: National Rural Electric Cooperative Association; Basin Electric Power Cooperative; East Kentucky Power Cooperative, Inc.; Hoosier Energy Rural Electric Cooperative, Inc.; Minnkota Power Cooperative, Inc.; Sunflower

Electric Power Corporation; and Tri-State Generation and Transmission Association, Inc.

No. 16-1218: Murray Energy Corporation.

No. 16-1220: State of West Virginia; State of Alabama; State of Arizona Corporation Commission; State of Arkansas; State of Florida; State of Georgia; State of Indiana; State of Kansas; Commonwealth of Kentucky; State of Louisiana; State of Louisiana Department of Environmental Quality; Attorney General Bill Schuette, People of Michigan; State of Missouri; State of Montana; State of Nebraska; The North Carolina Department of Environmental Quality; State of Ohio; State of Oklahoma; State of South Carolina; State of South Dakota; State of Texas; State of Utah; State of Wisconsin; and State of Wyoming.

No. 16-1221: Utility Air Regulatory Group and American Public Power Association.

No. 16-1227: Energy & Environment Legal Institute.

**Respondents:**

Respondents are the United States Environmental Protection Agency (in Nos. 15-1381, 15-1397, 15-1434, 15-1448, 15-1456, 15-1463, 15-1481, 15-1484, 16-1221, 16-1227) and the United States Environmental Protection Agency and Gina McCarthy, Administrator (in Nos. 15-1396, 15-1399, 15-1438, 15-1458, 15-1468, 15-1469, 15-1480, 15-1482, 16-1218, 16-1220).

**Intervenors and *Amici Curiae*:**

Lignite Energy Council and Gulf Coast Lignite Coalition are Petitioner-Intervenors.

American Lung Association; Center for Biological Diversity; Clean Air Council; Clean Wisconsin; Conservation Law Foundation; Environmental Defense Fund; Natural Resources Defense Council; Ohio Environmental Council; Sierra Club; State of California by and through Governor Edmund G. Brown, Jr., and the California Air Resources Board, and Attorney General Kamala D. Harris; State of Connecticut; State of Delaware; State of Hawaii; State of Illinois; State of Iowa; State of Maine; State of Maryland; State of Minnesota by and through the Minnesota Pollution Control Agency; State of New Hampshire; State of New Mexico; State of New York; State of Oregon; State of Rhode Island; State of Vermont; State of Washington; Commonwealth of Massachusetts; Commonwealth of Virginia; District of Columbia; City of New York; Golden Spread Electric Cooperative, Inc.; NextEra Energy, Inc.; Calpine Corporation; The City of Austin d/b/a Austin Energy; The City of Los Angeles, by and through its Department of Water and Power; The City of Seattle, by and through its City Light Department; National Grid Generation, LLC; New York Power Authority; Pacific Gas and Electric Company; Sacramento Municipal Utility District; Tri-State Generation and Transmission Association, Inc. are Respondent-Intervenors.

There are no *amici curiae* in these consolidated cases.

**B. Rulings Under Review**

These consolidated cases involve final agency action of the United States Environmental Protection Agency entitled, “Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” published on October 23, 2015, at 80 Fed. Reg. 64,510, and “Reconsideration of Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” published on May 6, 2016, at 81 Fed. Reg. 27,442.

**C. Related Cases**

These consolidated cases have not previously been before this Court or any other court.

Per the Court’s order of March 24, 2016, the following case was severed and is being held in abeyance pending potential administrative resolution of biogenic carbon dioxide emissions issues in the Final Rule: *Biogenic CO<sub>2</sub> Coalition v. EPA*, No. 15-1480.

TABLE OF CONTENTS

**Page**

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES..... i

TABLE OF CONTENTS ..... vi

TABLE OF AUTHORITIES ..... viii

GLOSSARY ..... xiii

JURISDICTIONAL STATEMENT..... 1

STATEMENT OF ISSUES ..... 1

STATUTES AND REGULATIONS ..... 2

INTRODUCTION..... 2

STATEMENT OF THE CASE ..... 5

I. Section 111 Of The CAA..... 5

II. The President’s Climate Action Plan..... 5

    A. The Rule ..... 6

    B. The Power Plan Rule ..... 8

SUMMARY OF ARGUMENT ..... 9

STANDING ..... 11

STANDARD OF REVIEW..... 12

ARGUMENT ..... 13

I. EPA Failed To Apply The Correct Legal Standard When Concluding  
That Its BSER Was Adequately Demonstrated..... 13

    A. Adequate Demonstration Requires Full Commercial-Scale  
Operation Of The Entire Integrated System..... 13

    B. EPA’s Attempts To Change The “Adequate Demonstration”  
Standard Are Unlawful. .... 16

    C. To The Extent That There Is Any Ambiguity As To EPA’s  
Burden, The CAA And EPA Act Should Be Interpreted To Prevent  
EPA From Intruding On The States’ Traditional Authority Over

Energy Production..... 23

II. EPA Failed To Show In The Record That Its BSER Is Adequately Demonstrated..... 25

    A. The Record Does Not Contain Any Evidence Of Fully-Integrated, Commercial-Scale Operations..... 25

    B. EPA Fails To Meet Even Its Incorrect, Reduced Legal Standard. .... 27

III. EPA Failed To Adequately Consider And Weigh The Benefits And Costs Of The Rule..... 29

    A. EPA Has A Statutory Obligation To Consider And Weigh Costs And Benefits Under The CAA. .... 29

    B. The Rule Should Be Vacated Because EPA Admits That The Rule Is Not Projected To Yield Any Benefits. .... 31

    C. The Rule Should Be Vacated Because EPA’s BSER Is Exorbitantly Costly And Therefore Has Not Been Adequately Demonstrated. .... 32

IV. EPA Failed To Make The Statutorily-Required Endangerment And Significant Contribution Findings..... 34

CONCLUSION ..... 37

## TABLE OF AUTHORITIES

### Cases

<i>Airmark Corp. v. FAA,</i>	
758 F.2d 685 (D.C. Cir. 1985) .....	34
<i>Am. Equity Inv. Life Ins. Co. v. SEC,</i>	
613 F.3d 166 (D.C. Cir. 2009) .....	31, 32
<i>Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm'n,</i>	
461 U.S. 375 (1983).....	24
<i>Bond v. United States,</i>	
134 S. Ct. 2077 (2014) .....	23
<i>Bus. Roundtable v. SEC,</i>	
647 F.3d 1144 (D.C. Cir. 2011) .....	31, 32
<i>Chevron, U.S.A., Inc. v. Natural Res. Def. Council,</i>	
467 U.S. 837 (1984).....	21
<i>Coal. for Responsible Regulation,</i>	
684 F.3d 102 (D.C. Cir. 2012) .....	36, 37
<i>*Essex Chem. Corp. v. Ruckelshaus,</i>	
486 F.2d 427 (D.C. Cir. 1973) .....	15, 17, 26, 30, 32
<i>Ethyl Corp. v. EPA,</i>	
541 F.2d 1 (D.C. Cir. 1976) .....	21, 22

*FDA v. Brown & Williamson Tobacco Corp.*,

529 U.S. 120 (2000)..... 23

*Heller v. Doe*,

509 U.S. 312 (1993)..... 36

*King v. Burwell*,

135 S. Ct. 2480 (2015) .....23, 35

*Lignite Energy Council v. EPA*,

198 F.3d 930 (D.C. Cir. 1999) ..... 19, 30

*Massachusetts v. EPA*,

549 U.S. 497 (2007)..... 37

*Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran*,

456 U.S. 353 (1982)..... 15

*Michigan v. EPA*,

135 S. Ct. 2699 (2015) ..... 10, 30

*Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*,

463 U.S. 29 (1983).....27, 34

*Nat'l Lime Ass'n v. EPA*,

627 F.2d 416 (D.C. Cir. 1980) ..... 12, 16

*Nken v. Holder*,

556 U.S. 418 (2009)..... 9



<i>Pac. Gas &amp; Elec. Co. v. State Energy Res. Conservation &amp; Dev. Comm'n,</i>	
461 U.S. 190 (1983).....	12, 24
<i>*Portland Cement Ass'n v. Ruckelshaus,</i>	
486 F.2d 375 (D.C. Cir. 1973) .....	9, 13, 14, 17, 18, 19, 30, 34
<i>Portland Cement Ass'n v. Train,</i>	
513 F.2d 506 (D.C. Cir. 1975) .....	30
<i>Price Waterhouse v. Hopkins,</i>	
490 U.S. 228 (1989).....	22
<i>Raygor v. Regents of Univ. of Minn.,</i>	
534 U.S. 533 (2002).....	24
<i>Severino v. N. Fort Myers Fire Control Dist.,</i>	
935 F.2d 1179 (11th Cir. 1991).....	22
<i>*Sierra Club v. Costle,</i>	
657 F.2d 298 (D.C. Cir. 1981) .....	9, 14, 15, 17, 18, 26, 28
<i>SW General, Inc. v. Nat'l Labor Relations Bd.,</i>	
796 F.3d 67 (D.C. Cir. 2015) .....	21
<i>West Virginia v. EPA,</i>	
362 F.3d 861 (D.C. Cir. 2004) .....	12

**Statutes**

26 U.S.C. § 48A(g).....10, 20, 21

29 U.S.C. § 794(a) ..... 22

\*42 U.S.C. § 7411(a) ..... 5, 13, 19, 30

\*42 U.S.C. § 7411(b)..... 1, 25, 11, 34, 35

42 U.S.C. § 7411(j)..... 15

42 U.S.C. § 7601(a) ..... 30, 31

42 U.S.C. § 7607(b)..... 1

42 U.S.C. § 7607(d)..... 12

42 U.S.C. § 13573(e)..... 20

42 U.S.C. § 13574(d) ..... 20

42 U.S.C. § 15962(a)..... 16

42 U.S.C. § 15962(i)..... 16, 20

Pub. L. No. 109-58, 119 Stat. 594 (2005) ..... 7

**Regulations**

40 C.F.R. Part 60, Subpart TTTT and Parts 70, 71, and 98..... 2

77 Fed. Reg. 22,391 (Apr. 13, 2012)..... 33

79 Fed. Reg. 1,430 (Jan. 8, 2014) ..... 7, 18

79 Fed. Reg. 10,750 (Feb. 26, 2014)..... 8, 25

\*80 Fed. Reg. 64,510 (Oct. 23, 2015).... 1, 6, 8-9, 16, 19-20, 22-23, 25, 26, 28-29, 31-32,  
35, 36

80 Fed. Reg. 64,600 (Dec. 22, 2015) ..... 8, 11, 17, 19

81 Fed. Reg. 27,442 (May 6, 2016) ..... 1

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

## GLOSSARY

BSER	Best System of Emission Reduction
CAA	Clean Air Act
CCS	Carbon Capture and Storage
DOE	Department of Energy
EGU	Electric Generating Unit
EPAct	Energy Policy Act of 2005
EPAct TSD	Technical Support Document-Effect of EPAct05 on BSER for New Fossil Fuel-fired Boilers and IGCCs
SCPC	Supercritical Pulverized Coal

## JURISDICTIONAL STATEMENT

Petitioners seek review of U.S. Environmental Protection Agency (“EPA”) final agency actions entitled “Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” 80 Fed. Reg. 64,510 (Oct. 23, 2015), Joint Appendix (“JA”) \_\_\_-\_\_\_ (the “Rule”), and “Reconsideration of Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” 81 Fed. Reg. 27,442 (May 6, 2016). Petitions for review were timely filed in this Court under section 307(b)(1) of the Clean Air Act (the “CAA”), 42 U.S.C. § 7607(b)(1).

## STATEMENT OF ISSUES

1. Whether EPA failed to apply the correct legal standard when determining whether its “best system of emission reduction” had been “adequately demonstrated” under CAA section 111(b), 42 U.S.C. § 7411(b), namely, whether the entire selected “system” is commercially available at full-scale facilities;
2. Whether EPA exceeded its authority under the CAA because, regardless of the legal standard applied, it failed to meet its burden of showing that efficient new supercritical pulverized coal (“SCPC”) utility boilers implementing partial carbon capture and storage (“CCS”) in deep saline formations is in fact the “best system of emission reduction” for CO<sub>2</sub> at fossil-fuel-fired steam generating units;

3. Whether EPA exceeded its authority under the CAA in selecting its “best system of emission reduction” by failing to adequately consider the costs and benefits of the Rule; and

4. Whether EPA failed to properly consider whether CO<sub>2</sub> emissions are “reasonably ... anticipated to endanger public health or welfare,” and whether fossil-fuel-fired steam generating units “contribute[] significantly” to that endangerment, as required for EPA to regulate under the CAA § 111(b), 42 U.S.C. § 7411(b).

### STATUTES AND REGULATIONS

The Rule is codified in 40 C.F.R. Part 60, Subpart TTTT and Parts 70, 71, and 98. The Statutory and Regulatory Addendum reproduces pertinent portions of cited statutes and regulations.

### INTRODUCTION

This Rule is a cornerstone of EPA’s agenda to eliminate coal-fired power plants from the mix of energy generation relied on by States. It is designed—by virtue of an impossibly high technology standard—to eliminate the construction of *new* coal-fired power plants. It is also a statutory predicate for the 111(d) Rule (“Power Plan Rule”), which is EPA’s tool to eliminate *existing* coal-fired power plants.

But like the Power Plan Rule, which has been separately challenged before this Court, this Rule far exceeds the agency’s authority. Congress has not granted EPA the power to choose winners and losers in the energy marketplace. Indeed, even the Federal Energy Regulatory Commission is prohibited under the Federal Power Act

from exercising such authority. The CAA grants EPA the authority to regulate air pollution, but specifically requires that EPA's standards reflect "demonstrated" levels of technology that are also cost-effective, precisely so that pollution regulation does not become a cudgel for EPA to force unwanted industries out of business.

Among many deficiencies, the Rule fails to satisfy the statutory requirement that EPA select a "best system of emission reduction" ("BSER") that has been "adequately demonstrated." Under this Court's case law, EPA must show that the entire selected system is *commercially available* for implementation at new, full-scale facilities. As counsel for EPA recently conceded to this Court, sitting *en banc* to hear challenges to the Power Plan Rule, "the statute directly requires that any system of emission reduction be adequately demonstrated," which means that "*any emission reduction system that isn't already in place and successful within an industry can't be used ....*" Transcript of Oral Argument, *State of West Virginia v. EPA*, No. 15-1363, 61 (emphasis added).

Relatedly, EPA is prohibited under the Energy Policy Act of 2005 ("EPAct") from considering facilities that receive certain federal subsidies or tax credits when determining whether a system has been "adequately demonstrated"—for the very reason that subsidized, emergent technologies have not proven to be commercially viable.

But instead of attempting to show that its BSER is a demonstrated, commercially available technology, EPA employs various sleights of hand to attempt

to reduce its statutory burden. *First*, it erroneously asserts that it need only show that its BSER is “technically feasible,” rather than commercially available. *Second*, EPA claims that it need not demonstrate the operation of its “system” as an integrated whole, but need only show the feasibility of each component part of the system. *Third*, EPA relies on a plainly erroneous interpretation of EPA Act to conclude that it may consider covered, subsidized facilities to support its adequate demonstration analysis so long as it also considers even a scintilla of other evidence.

EPA cannot cobble together various component technologies that exist only in highly-subsidized, pilot-scale, or experimental form and declare the amalgam “adequately demonstrated.” Much like the griffin, which combines parts of the bodies of different animals into one mythical creature, EPA’s BSER does not exist in the integrated form mandated by the agency anywhere in the world, and the closest analogues are either small-scale plants or plants that receive significant government funding.

EPA’s purpose behind imposing its unproven BSER on regulated plants is clear—to ensure that coal-fired energy has no future in the energy landscape. But EPA cannot set unachievable national emissions standards for new fossil-fuel-fired steam generating units to transform the energy economy in this manner. The Rule is not a faithful application of section 111 and must be vacated.



## STATEMENT OF THE CASE

### I. Section 111 Of The CAA

Enacted in 1970 and amended in 1977 and 1990, CAA section 111 authorizes EPA to impose nationwide emission limits—a “standard of performance”—on any category of new and modified stationary sources that the agency has found “causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7411(b)(1)(A).

CAA section 111(a)(1) defines “standard of performance” to include several important statutory limitations on EPA’s power to set emission standards on stationary sources. A “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.

42 U.S.C. § 7411(a)(1).

### II. The President’s Climate Action Plan

After Congress repeatedly rejected legislation authorizing greenhouse gas reduction programs, President Obama ordered EPA to use CAA section 111 to force steam generating units to make steep reductions in CO<sub>2</sub> emissions. *See Power Sector Carbon Pollution Standards: Memorandum for the Administrator of the Environmental Protection Agency*, 78 Fed. Reg. 39,535 (June 25, 2013), JA\_\_\_\_-\_\_\_\_. On October 23, 2015, EPA

did as directed, simultaneously adopting two major rules under CAA section 111(b) and section 111(d), regulating CO<sub>2</sub> emissions from new, modified, reconstructed, and existing fossil-fuel-fired steam generating units, respectively. *See* 80 Fed. Reg. 64,510 (Oct. 23, 2015), JA\_\_\_\_-\_\_\_\_; *Id.* at 64,662 (Oct. 23, 2015), JA\_\_\_\_-\_\_\_\_.

### **A. The Rule**

The Rule requires, among other things, that new fossil-fuel-fired steam generating units limit CO<sub>2</sub> emissions to 1,400 lb. CO<sub>2</sub>/MWh-g.<sup>1</sup> To justify this standard, EPA selected as the BSER “a new highly efficient SCPC [electric generating unit (‘EGU’)] implementing partial post-combustion CCS”, 80 Fed. Reg. at 64,542, JA\_\_\_\_, in “deep saline formations,” *id.* at 64,579 (“the determination that the BSER is adequately demonstrated ... relies on [geologic sequestration] in deep saline formations”), JA\_\_\_\_. EPA claims that new units can achieve this standard by implementing a SCPC unit that captures CO<sub>2</sub> post-combustion. *Id.* at 64,513, JA\_\_\_\_. EPA concedes in the Rule that even the most efficient, commercially-available new fossil-fuel-fired steam generating units will be unable to meet a 1,400 lb. CO<sub>2</sub>/MWh-g standard in the absence of CCS. *Id.* at 64,548, JA\_\_\_\_. EPA also notes that Integrated Gasification Combined Cycle technology—though not part of its BSER—can either

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<sup>1</sup> The Rule also establishes a standard for reconstructed and modified steam generating units. 80 Fed. Reg. at 64,512, JA\_\_\_\_. State Petitioners focus here on the requirements for new sources, but agree with Non-State Petitioners that the modified and reconstructed standards are unlawful. Non-State Br. III.

implement CCS or natural gas co-firing as an alternative method of compliance with the Rule. *Id.* at 64,514, JA\_\_\_\_.

In the preamble to the Rule, EPA acknowledges that it must show that its BSER is “adequately demonstrated.” *Id.* at 64,512, JA\_\_\_\_. But contrary to case law, EPA concludes that, to satisfy this standard, it need only show that its proposed system is “technically feasible.” *See, e.g., id.* at 64,513, 64,527, 64,538, JA\_\_\_\_, \_\_\_\_, \_\_\_\_\_. EPA reasoned that “[t]here is no requirement, as part of the BSER determination, that the EPA finds that the technology in question is ‘commercially available.’” *Id.* at 64,556, JA\_\_\_\_. EPA also rejected the conclusion that it must show that a BSER’s component parts can operate as a fully-integrated system. *Id.* EPA instead construed the CAA as allowing it to “legitimately infer that a technology is demonstrated as a whole based on operation of component parts which have not, as yet, been fully integrated.” *Id.*

EPA also relied on a host of federally-subsidized facilities in support of its analysis that its BSER had been adequately demonstrated. *Id.* at 64,548, 64,551-55, JA\_\_\_\_, \_\_\_\_-\_\_\_\_. While EPA did not address EPAct when it proposed the Rule, *see* 79 Fed. Reg. 1,430 (Jan. 8, 2014), JA\_\_\_\_, that statute has prohibited the agency since 2005 from even “consider[ing]” technology as adequately demonstrated under CAA section 111 where the technology is used at a facility receiving certain federal subsidies or tax credits. *See* Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594 (2005). But rather than withdraw the Rule, as State Petitioners requested in comments,

Comments of West Virginia, et al., EPA-HQ-OAR-2013-0495-9505, at 8 (May 9, 2014) (“West Virginia Comments”) (requesting that EPA withdraw its proposal because it violated EPCRA on its face), JA\_\_\_\_, EPA issued a separate request for comment on the effect of EPCRA, 79 Fed. Reg. 10,750 (Feb. 26, 2014), JA\_\_\_\_. And in the final Rule, EPA construed the limitations of EPCRA narrowly, concluding that EPCRA “preclude[s] [it] from relying solely on the experience of facilities that received [Department of Energy (“DOE”)] assistance, but [does] not [] preclude [it] from relying on the experience of such facilities in conjunction with other information.” 80 Fed. Reg. at 64,541, JA\_\_\_\_.

Despite imposition of this novel BSER on regulated entities, EPA concluded that any costs and benefits associated with the Rule would be negligible because “existing and anticipated economic conditions are such that few, if any, fossil-fuel-fired steam-generating EGUs will be built in the foreseeable future.” *Id.* at 64,515, JA\_\_\_\_. EPA thus concluded that the Rule would not produce “notable CO<sub>2</sub> emission changes, energy impacts, monetized benefits, costs, or economic impacts.” *Id.* at 64,642, JA\_\_\_\_.

## **B. The Power Plan Rule**

Having established a section 111(b) rule, EPA then invoked section 111(d) to promulgate its Power Plan Rule, which unlawfully set binding emission limitations that require sharp CO<sub>2</sub> reductions for *existing* fossil-fuel-fired steam generating units. 80 Fed. Reg. at 64,662, JA\_\_\_\_.

State Petitioners challenged the Power Plan Rule in a separate proceeding before this Court and sought a stay pending judicial review. *See West Virginia v. EPA*, No. 15-1363 (and consolidated cases) (D.C. Cir. filed Oct. 23, 2015). On February 9, 2016, the Supreme Court stayed the Power Plan, halting its enforceability and its deadlines pending Supreme Court review. Order in Pending Case, *West Virginia v. EPA*, No. 15A773 (U.S. Feb. 9, 2016); *see Nken v. Holder*, 556 U.S. 418, 428 (2009).

### SUMMARY OF ARGUMENT

I. In adopting the Rule, EPA far exceeded the authority provided by Congress under section 111(b) of the CAA to set emission standards for new fossil-fuel-fired steam generating units. The CAA requires a rigorous showing that the selected “best system of emission reduction” be “adequately demonstrated.” The text and structure of the CAA, and its consistent interpretation by this Court, make clear that EPA must demonstrate that its preferred “system” is commercially available. *Sierra Club v. Costle*, 657 F.2d 298, 319 (D.C. Cir. 1981); *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973).

Rather than hold itself to this well-established standard, EPA has impermissibly “relaxed” its statutory burden. *Costle*, 657 F.2d at 341 n.157. The agency claims that it need only show that the individual component parts of its selected system are “technically feasible.” 80 Fed. Reg. at 64,513, JA\_\_\_\_. Worse, EPA’s reliance on facilities that receive government funding violates Congress’s explicit instruction in

EPAct that such facilities shall not be “considered” in determining whether a particular system has been “adequately demonstrated.” 26 U.S.C. § 48A(g).

If permitted to stand, EPA’s interpretation would eliminate an important check on the agency’s authority under section 111(b). If EPA can require emission reductions based on a system that does not exist at commercial scale anywhere in the world, it has the power to deter the construction of new coal-fired plants in favor of EPA’s preferred energy sources. That is inconsistent with the statutory text and this Court’s cases. And at a minimum, it is a direct intrusion on the States’ traditional authority over electricity generation that requires a clear statement from Congress.

**II.** Applying the correct legal standard here, there can be no doubt that EPA’s BSER has not been adequately demonstrated. Without small-scale pilot programs and facilities that have received federal funding under EPAct, EPA can only identify one facility where it claims its BSER is fully operational—Canada’s Boundary Dam. But that facility receives substantial government funding, like the EPAct facilities. It is also less than one-quarter the size of a full-scale power plant, has suffered massive cost overruns, and does not sequester in deep saline formations. It is not sufficient to carry EPA’s burden to show adequate demonstration.

**III.** EPA has also failed to adequately consider the costs and benefits of the new Rule, as required by the CAA. The Supreme Court and this Court have required that EPA engage in a reasoned analysis of costs before engaging in significant rulemaking. *See Michigan v. EPA*, 135 S. Ct. 2699, 2706 (2015); *infra* III.A. Here, EPA

ignored the significant costs that imposing a nationwide CCS-based standard would have in deterring the creation of new plants. And EPA adopted the Rule despite admitting that it would result in negligible CO<sub>2</sub> savings. It violates the CAA for EPA to adopt a costly Rule while conceding that the Rule is unlikely to result in any discernible benefit.

**IV.** Finally, EPA bypassed critical statutory conditions that it must satisfy before it can even consider the specifics of any 111(b) rule. Specifically, Congress required that EPA find that the air pollutant it seeks to regulate “may reasonably be anticipated to endanger public health or welfare,” and that the source category to be regulated actually “contributes significantly” to that endangerment. 42 U.S.C. § 7411(b)(1)(A). Yet EPA failed to comply with these straightforward prerequisites in promulgating the Rule. It erred in concluding that the source category here had already been listed, and even assuming the source category had been listed, EPA was wrong in asserting that it only needs a “rational basis” to regulate a new pollutant from a previously-listed source category.

## **STANDING**

State Petitioners have standing because the Rule is a necessary legal predicate for EPA’s Power Plan Rule, which requires States to create and submit state plans to implement EPA’s CO<sub>2</sub> emission limits. 80 Fed. Reg. at 64,669, JA\_\_\_\_. The Rule is a but-for cause of the States’ obligation to revise or create a section 111(d) state plan,

which is an injury-in-fact sufficient for standing. *West Virginia v. EPA*, 362 F.3d 861, 868 (D.C. Cir. 2004).

State Petitioners also have standing because the Rule mandates a BSER that is not commercially available, which will deter the construction of new coal-fired steam generating units within the States. This intrudes on the States' "traditional authority over the need for additional generating capacity, the type of generating facilities to be licensed, land use, ratemaking, and the like." *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 212 (1983).

### **STANDARD OF REVIEW**

This Court's decisions "have established a rigorous standard of review under section 111." *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 429 (D.C. Cir. 1980). "EPA must affirmatively show" during the rulemaking process that its BSER is adequately demonstrated. *See id.* at 433. This Court must set aside final EPA action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;" "contrary to constitutional right, power, privilege, or immunity;" or "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 42 U.S.C. § 7607(d)(9)(A)–(C).



## ARGUMENT

### I. EPA Failed To Apply The Correct Legal Standard When Concluding That Its BSER Was Adequately Demonstrated.

In the Rule, EPA concocts a new legal standard that impermissibly and significantly reduces its statutory burden. As noted, section 111 requires that a standard of performance “reflect[] the degree of emission limitation achievable through the application of the [BSER] which ... has been adequately demonstrated.” *Id.* § 7411(a)(1). But EPA concluded that it only needed to show that each individual component of its BSER was “technically feasible.” This new standard conflicts with the text, history, and structure of the CAA and this Court’s longstanding interpretation of section 111(b). As further explained in Part B, EPA’s flawed legal analysis renders most of EPA’s supporting evidence inadmissible, and what little evidence remains is insufficient to show that its BSER is adequately demonstrated.

#### A. Adequate Demonstration Requires Full Commercial-Scale Operation Of The Entire Integrated System.

Contrary to EPA’s assertion, the CAA’s “adequate demonstration” standard requires EPA to show commercial availability. As this Court has explained, this standard first appeared prior to enactment of the original 1970 CAA in Conference Committee, which rejected earlier versions proposed by both the House and Senate. *Portland Cement*, 486 F.2d at 391. The House had initially proposed a standard similar to what EPA advocates here, namely, that EPA give “appropriate consideration to

*technological* and economic *feasibility*.” *Id.* (emphases added). But that did not become law.

In parsing the legislative history of the “adequate demonstration” requirement, this Court identified the “essential question” as “whether the technology would be available for installation in new plants.” *Id.* Thus, under the “final language adopted, ... it must be ‘adequately demonstrated’ that there will be ‘available technology.’” *Id.*

In decisions following the CAA’s enactment, this Court confirmed and elaborated on the commercial availability requirement. Notably, in *American Petroleum Institute v. EPA*, this Court rejected the EPA’s reliance on “pilot plant data” to demonstrate the effectiveness of carbon adsorption technology, which the EPA conceded “needs further development before [the technology] will show the high degree of effectiveness in large-scale operation that it has already shown in pilot plant demonstrations.” 540 F.2d 1023, 1038 (D.C. Cir. 1976).

Similarly, in *Costle*, this Court noted a distinction between an “innovative or emerging technology” and an “adequately demonstrated” system. *Costle*, 657 F.2d at 341 n.157. In that case, the record indicated that dry scrubbing was *not* an “adequately demonstrated” technology because the record reflected that “crucial issues such as waste disposal and demonstration of commercial-scale systems, which may continue to limit the overall acceptability of this technology, remain to be answered.” *Id.* (internal citation omitted). There, EPA conceded that there were “no full scale dry scrubbers ... presently in operation,” and relied instead on pilot scale test data. *Id.*

(internal citation omitted). But this Court concluded that this evidence provided “no basis” to conclude “that dry scrubbing is adequately demonstrated for full scale plants throughout this industry.” *Id.*<sup>2</sup>

The distinction drawn in *Costle* finds additional support in section 111(j) of the CAA, which specifically refers to an “innovative technological system” as one which has “*not* been adequately demonstrated.” 42 U.S.C. § 7411(j) (emphasis added). New sources may employ such systems only if they show that use of the “innovative” system would achieve a “greater” degree of emission reduction and if they can demonstrate that the system “will not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation, function, or malfunction.” *Id.* Because such vanguard technologies would *not* be in ordinary commercial use, and would therefore be untested, Congress required additional safeguards before new sources could adopt them.

Furthermore, Congress is “presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change.” *Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran*, 456 U.S.

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<sup>2</sup> In those instances when this Court *has* permitted EPA to rely in part on pilot-scale data, it is only because EPA has proven that such data is “representative of full-scale performance.” *Id.* at 382. And EPA has typically supplemented this data with further evidence of full-scale commercial use. *See, e.g., id.* at 380 (record for achievability of standard for baghouse technology included “limited data from one full scale commercial sized operation,” among other evidence); *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 440 (D.C. Cir. 1973) (record included “tests of prototype *and full-scale* control systems,” among other evidence).

353, 382 n.66 (1982). Here, Congress amended the CAA in 1977 and 1990, but on neither occasion changed the “adequately demonstrated” standard.

Indeed, if anything, Congress reinforced the commercial availability test when it enacted EPCRA in 2005. That statute instructed EPA that no facility that received certain forms of government funding “shall be considered to be ... adequately demonstrated.” 42 U.S.C. § 15962(i). Congress explained that those projects “advance efficiency, environmental performance, and cost competitiveness *well beyond* the level of technologies that are *in commercial service or have been demonstrated* on a scale” that DOE “determine[s] is sufficient to demonstrate that commercial service is viable as of [the date of enactment].” 42 U.S.C. § 15962(a) (emphasis added). The statute is clear: If a facility requires subsidies to exist, it is unlikely to be commercially viable at the present time, and therefore, is not “adequately demonstrated.”

### **B. EPA’s Attempts To Change The “Adequate Demonstration” Standard Are Unlawful.**

EPA attempts to lighten its burden to “affirmatively show” that its BSEER is adequately demonstrated. *See Nat’l Lime Ass’n*, 627 F.2d at 433. But none of its maneuvers are permitted under the CAA.

#### **1. The Adequate Demonstration Analysis Requires More Than Showing That The System Is Merely Technically Feasible.**

First, EPA improperly attempts to replace the adequately demonstrated standard with a completely novel “technical feasibility” standard. *See, e.g.*, 80 Fed. Reg. at 64,513, JA\_\_\_\_. As noted above, Congress specifically considered and rejected a

“technological ... feasibility” standard in drafting the CAA. And unsurprisingly, no federal case interpreting section 111 uses the phrases “technically feasible” or “technical feasibility” in the context of adequate demonstration of its BSER.

To be sure, this Court has discussed whether the system EPA selected had the “technological feasibility” “to achieve mandated pollution control.” *Portland Cement*, 486 F.2d at 388 (examining both adequate demonstration and achievability); *see also Costle*, 657 F.2d at 318-19. But these discussions deal with the separate statutory requirement that the emission limits set by EPA be “achievable” by the source. *See Essex*, 486 F.2d at 433. That is, assuming EPA has shown that its BSER is adequately demonstrated, EPA must also show that its selected BSER has the ability to “achiev[e]” the selected “standard for emissions of air pollutants” set by EPA, *id.* at 433.<sup>3</sup> That independent limitation on EPA’s authority must not be conflated with the prior, foundational inquiry that the selected BSER be “available for installation in new plants.” *Portland Cement*, 486 F.2d at 391. EPA ignores that requirement here.

EPA suggests that the CAA permits it to adopt unproven systems under the guise of “promot[ing] technological development.” *See* 80 Fed. Reg. at 64,600, JA\_\_\_\_. That too is incorrect. While this Court has acknowledged that “Section 111 looks toward what may fairly be projected for the regulated future, rather than the state of the art at present, since it is addressed to standards for new plants,” this Court noted

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<sup>3</sup> For other, independently sufficient reasons, EPA has failed to show that its BSER can “achieve” the standard. *See* Non-State Br. I.C. & III.B.

in the same breath that “[t]he essential question [i]s ... whether the technology [is] available for installation in new plants.” *Portland Cement*, 486 F.2d at 391; *Costle*, 657 F.2d at 364 n.276 (quoting *Portland Cement*). Therefore, while EPA need not select a technology that represents the current industry standard, it must select a technology that *currently exists* and is *commercially viable*. It has failed to do so here.

**2. The Adequate Demonstration Analysis Requires System-Wide Demonstration, Not Demonstration of Individual Components.**

EPA also impermissibly attempts to undermine the CAA by applying its invented “technical feasibility” standard not to the CCS system as a whole, but to each of its “components,” asserting that it is “[un]necessary that the major components be demonstrated in an integrated process in order to determine the technical feasibility of each component.” See EPA, Docket EPA-HQ-OAR-2013-0495, *Technical Support Document-Effect of EPAct05 on BSER for New Fossil Fuel-fired Boilers and IGCCs* (2014) at 4, [https://www.epa.gov/sites/production/files/2014-01/documents/2013\\_proposed\\_cps\\_for\\_new\\_power\\_plants\\_tsd.pdf](https://www.epa.gov/sites/production/files/2014-01/documents/2013_proposed_cps_for_new_power_plants_tsd.pdf) (“EPAct TSD”), JA\_\_\_\_; see also 79 Fed. Reg. 1471, JA\_\_\_\_.

EPA’s component approach, however, conflicts with EPA’s own understanding of the word “system.” As EPA argued in the preamble to the Power Plan Rule, the “ordinary, everyday meaning of ‘system’” includes “a set of things or parts forming a complex whole;” “a group of interacting, interrelated, or interdependent elements;” and “an assemblage or combination of things or parts

forming a complex or unitary whole.”<sup>4</sup> 80 Fed. Reg. at 64,720 & n.314 (collecting dictionaries), JA\_\_\_\_. These definitions, coupled with the statutory text, confirm that EPA must show that the entire, integrated “*system* ... has been adequately demonstrated.” 42 U.S.C. § 7411(a)(1) (emphasis added).

This conclusion comports with this Court’s precedents instructing that “EPA may not base its determination that a technology is adequately demonstrated ... on mere speculation or conjecture.” *Lignite Energy Council v. EPA*, 198 F.3d 930, 934 (D.C. Cir. 1999). By purporting to show merely that components of a system are technically feasible without proving that they can be successfully integrated in a full-scale commercial plant, EPA impermissibly relies on “‘crystal-ball’ inquiry” to attempt to demonstrate its system. *Portland Cement*, 486 F.2d at 391.

### **3. EPA Cannot Rely On EPCRA-Subsidized Facilities To Meet The Adequate Demonstration Standard.**

Finally, EPA improperly purports to reduce its statutory burden by explicitly considering facilities to support its adequate demonstration analysis that are excluded under federal law. EPCRA authorizes federal assistance in the form of grants, loan guarantees, and federal tax credits for investment in certain types of energy technology. 80 Fed. Reg. at 64,541, JA\_\_\_\_. But it also contains three separate provisions—sections 402(i) (covering facilities receiving assistance under the Energy

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<sup>4</sup> Although not relevant here, State Petitioners demonstrated in their briefs challenging EPA’s Power Plan Rule that there are other independent limitations on what can qualify as a “system” under CAA. Dkt. 1608991, at \*13-15, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. filed April 15, 2016).

Policy Act of 2005), 421(a) (adding sections 3103(e) and 3104(d) to the Energy Policy Act of 1992 to cover facilities receiving assistance under the Clean Air Coal Program), and 1307(b) (adding section 48A(g) to the Internal Revenue Code to cover facilities receiving the Qualifying Advanced Coal Project Credit)—that contain substantively identical language prohibiting EPA from considering any EAct-assisted facilities when determining whether a particular system has been adequately demonstrated.

EPA admits that these related provisions “were part of the same legislation and address the same issue,” and that there is no “indicati[on] that they were meant to have different meanings.” EAct TSD at 13, JA\_\_\_\_. One representative section, and the last to be enacted into law, provides that:

No use of technology (or level of emission reduction solely by reason of the use of the technology), and no achievement of any emission reduction by the demonstration of any technology or performance level, by or at one or more facilities with respect to which a credit is allowed under this section, shall be considered to indicate that the technology or performance level is ... adequately demonstrated for purposes of section 111 of the Clean Air Act ....

26 U.S.C. § 48A(g); *see also* 42 U.S.C. §§ 13573(e), 13574(d), 15962(i).

In interpreting this statute, EPA admits that the provisions collectively cover any “technology or emissions reduction for which assistance was given” or the “credit is allowed.” 80 Fed. Reg. at 64,541, JA\_\_\_\_. EPA nonetheless attempts to parse each of these provisions to reach its strained and implausible reading of the statute. That is, EPA concludes that these provisions merely “bar[] consideration where EAct[]-assisted facilities were the sole support for the BSER determination,” but permit



consideration to “support a BSER determination so long as there is additional evidence supporting the determination.” *Id.*<sup>5</sup> EPA makes two arguments in support of this reading, neither of which comport with the plain language of the statute.

*First*, EPA argues that the phrase “considered to indicate,” which appears only in section 48A(g), should be interpreted to mean “*deemed to prove*.” Response to Comment at 2-122, EPA-HQ-OAR-2013-0495-11861, JA\_\_\_; Chloe Kolman Memorandum to Section 111(b) Docket on EPLAct05 at 5 (July 29, 2015), EPA-HQ-OAR-2013-0495-11334, JA\_\_\_. This reading, however, is plainly erroneous. The term “considered,” when directed at EPA, has been interpreted as a direction *to that agency* to take a particular factor into account. *Ethyl Corp. v. EPA*, 541 F.2d 1, 32 n.66 (D.C. Cir. 1976) (mandatory “consideration” of factors requires “actual good faith consideration of the specified evidence and options”). EPA’s contorted interpretation, which would permit it to “consider” EPLAct-assisted facilities so long they are not “deemed to prove” a technology is adequately demonstrated, cannot be accepted.

*Second*, EPA argues that the phrase “solely by reason of,” as it appears in sections 402(i) and 421(a) (but not section 48A(g)), indicates that EPA can “rely on information from EPLAct[] facilities even where that information is a *necessary* component of its determination, so long as the information from these facilities is not

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<sup>5</sup> Contrary to EPA’s assertion, its interpretations of EPLAct are due no deference, because EPLAct is not a statute that EPA has been “entrusted to administer.” *Chevron, U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 844 (1984); *see also SW General, Inc. v. Nat’l Labor Relations Bd.*, 796 F.3d 67, 74 n.4 (D.C. Cir. 2015).

the *sole* support for the determination.” Response to Comments at 2-118 to 2-120, EPA-HQ-OAR-2013-0495-11861, JA\_\_\_\_,\_\_\_\_; *see also* 80 Fed. Reg. at 64541, JA\_\_\_\_. But EPA’s interpretation is contrary to the plain meaning of the statute. If consideration of EPCRA-assisted pilot-scale projects is a deciding factor that tips the balance in favor of EPA finding a technology to be adequately demonstrated, then EPA’s adequate demonstration determination is “solely by reason of” its consideration of the pilot-scale projects. In other words, EPA would not have been able to make a finding of adequate demonstration *but for* the pilot-scale projects. Thus, EPA is prohibited from considering covered facilities to support the Rule.

EPA effectively claims that the phrase “solely by reason of” introduces a “mixed motive” standard of causation, whereby EPA can consider covered facilities as long as it considers *any other* evidence not covered by EPCRA. But courts have rejected this narrow meaning of “solely by reason of” where context shows that Congress intended to adopt a “but-for” causation standard. *See, e.g., Price Waterhouse v. Hopkins*, 490 U.S. 228, 241 (1989) (absence of word “solely” in Title VII indicated that Congress intended to adopt mixed-motive standard, rather than but-for standard); *Severino v. N. Fort Myers Fire Control Dist.*, 935 F.2d 1179, 1184-85 (11th Cir. 1991) (prohibition in Rehabilitation Act against discrimination “solely by reason of ... handicap,” 29 U.S.C. § 794(a), must signify “but-for” cause or similar standard). Applying the proper standard, EPA must show that it would have made the same decision in the absence of considering any EPCRA-assisted facilities.

This is the only interpretation that makes sense when reading the words “in ... context and with a view to their place in the overall statutory scheme.” *King v. Burwell*, 135 S. Ct. 2480, 2489 (2015) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000)). Otherwise, EPA could always circumvent EPCRA merely by pointing to some small article of additional evidence to support its adequate demonstration analysis. Indeed, EPA does not dispute that under its reading of the statute, it could avoid EPCRA’s restrictions by “including a mere scintilla of evidence from non-EPCRA05 facilities,” but merely asserts that such an “extreme hypothetical ... is not presented here.” 80 Fed. Reg. at 64,541, JA\_\_\_\_. This Court should not allow an interpretation that would undermine Congress’s goal of precluding EPA from relying on government-subsidized facilities.

**C. To The Extent That There Is Any Ambiguity As To EPA’s Burden, The CAA And EPCRA Should Be Interpreted To Prevent EPA From Intruding On The States’ Traditional Authority Over Energy Production.**

If there were any doubt as to the proper interpretation of EPCRA or of section 111 of the CAA, such doubt should be resolved in favor of State Petitioners’ reading, which protects the States’ traditional interest in energy policy from federal encroachment. It is a “well-established principle that it is incumbent upon the federal courts to be certain of Congress’ intent before finding that federal law overrides the usual constitutional balance of federal and state powers.” *Bond v. United States*, 134 S. Ct. 2077, 2089 (2014) (internal quotations omitted). “This principle applies when

Congress ‘intends to pre-empt the historic powers of the States’ or when it legislates in ‘traditionally sensitive areas’ that ‘affec[t] the federal balance.’” *Raygor v. Regents of Univ. of Minn.*, 534 U.S. 533, 544 (2002).

The statutes, as interpreted by EPA, cannot be squared with that principle. EPA’s interpretation of section 111(b) and EPAct would allow it to promulgate emission requirements premised on technology that is commercially available nowhere in the world. In practical effect, this would require States either to expend enormous sums on highly experimental and costly control technology or else abandon coal in favor of EPA’s preferred forms of energy generation.

Under either option, EPA’s interpretation of section 111 effectively usurps the long-recognized authority that States possess over significant “questions of need, reliability, cost and other related state concerns” in the “field of regulating electrical utilities.” *Pac. Gas*, 461 U.S. at 205. The States’ authority over the intrastate generation and consumption of energy is “one of the most important ... functions traditionally associated with the police powers of the States.” *Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm’n*, 461 U.S. 375, 377 (1983). And historically, the “economic aspects of electrical generation”—which lie at the very heart of the Rule—“have been regulated for many years and in great detail by the states.” *Pac. Gas*, 461 U.S. at 206.

Thus, any ambiguity in the CAA or EPAct should be read to preserve the States’ traditional authority over energy generation by requiring, at a minimum, that

EPA demonstrate that technology is commercially available before imposing it as a nationwide standard on new sources under section 111(b).

**II. EPA Failed To Show In The Record That Its BSER Is Adequately Demonstrated.**

**A. The Record Does Not Contain Any Evidence Of Fully-Integrated, Commercial-Scale Operations.**

Had EPA applied the correct legal standard, it could not have provided an adequate justification for the Rule, because the record reflects that EPA's selected BSER is not commercially available anywhere in the world. Therefore, the Rule must be vacated.

Most of the evidence that EPA cites to support the Rule cannot be considered once the correct legal standard is applied. EPA concedes, as it must, that it "prominently discussed" several facilities in the proposed rule (Kemper, Hydrogen Energy California Project, and Texas Clean Energy Project) that received both Clean Coal Power Initiative funding and section 48A tax credit allocations, and were therefore covered by EPA's TSD at 20, JA\_\_\_; 79 Fed. Reg. 10,750 (Feb. 26, 2014), JA\_\_\_; 80 Fed. Reg. at 64,526 & n.74, JA\_\_\_. But as explained above, EPA cannot justify the Rule unless it can show that it would have selected the same BSER even had it not unlawfully "considered" these highly-subsidized facilities.<sup>6</sup>

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<sup>6</sup> As Non-State Petitioners explain (Non-State Br. Part I.A.), EPA would not have satisfied its burden even if it could consider EPA-funded facilities. None of these projects is fully operational. Additionally, all three would substantially deviate from EPA's BSER, because they would use IGCC technology rather than SCPC, and would

EPA also relies on a handful of small-scale demonstration projects that reflect non-utility operations, include only one component of the CCS system, or have not been completed, in an effort to show that partial CCS is “feasible.” *Id.* at 64,550-56, JA\_\_\_\_-\_\_\_\_. But as noted above, these small demonstration projects cannot meet the adequate demonstration standard where, as here, they are not “representative of full scale performance,” *Costle*, 657 F.2d at 382, and are not bolstered by other evidence of full-scale viability. *See* Non-State Br. I.A.

EPA also relies on vendor guarantees to support its technical feasibility finding, but admits that “it is unlikely that a single technology vendor would provide a guarantee for ‘the system as a whole.’” 80 Fed. Reg. at 64,555, JA\_\_\_\_. EPA cannot rely on vendor guarantees relating to particular component parts to show that the fully-integrated “system” had been adequately demonstrated. *See Essex*, 486 F.2d at 440; *Costle*, 657 F.2d at 364.

Eliminating EPCRA-covered facilities, pilot-scale facilities, and vendor guarantees, EPA’s sole purported evidence of an operating commercial-scale CCS system at an EGU is Boundary Dam.<sup>7</sup> *See* 80 Fed. Reg. 64,549–50, JA\_\_\_\_-\_\_\_\_. EPA

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inject the CO<sub>2</sub> for enhanced oil recovery purposes rather than into deep saline formations. *See id.*

<sup>7</sup> EPA identifies Dakota Gasification, which did not receive EPCRA funding, as a “full-scale commercial operation that is successfully implementing pre-combustion CCS technology.” 80 Fed. Reg. at 64,556, JA\_\_\_\_. But as a pre-combustion process that manufactures natural gas, Dakota Gasification does not generate power and is not representative of the operations of a full-scale commercial system. *See* Comments of

concludes that Boundary Dam, by itself, shows the “technical feasibility of full-scale, fully integrated implementation of available post-combustion CCS technology, which in this case also appears to be commercially viable.” *Id.* at 64,550, JA\_\_\_\_. But Boundary Dam cannot bear the weight that EPA assigns to it. As further discussed by Non-State Petitioners (*see* Non-State Br. at I.A.), Boundary Dam is a small-scale facility that does not incorporate all elements of EPA’s BSER, such as sequestration in deep saline formations. *Id.* at 64,556; JA\_\_\_\_. It has also been heavily reliant on financial assistance from both the Canadian federal government and Saskatchewan provincial government. *Id.* at 64,550–51, JA\_\_\_\_-\_\_\_\_. It therefore implicates the same concerns as the EPA facilities that Congress expressly forbade EPA to consider, namely, it provides no evidence that the enterprise would be commercially viable for full-scale, non-subsidized plants. Because EPA “has relied on factors which Congress has not intended it to consider” in touting Boundary Dam as commercially available technology, it has acted arbitrarily and capriciously. *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

**B. EPA Fails To Meet Even Its Incorrect, Reduced Legal Standard.**

EPA’s BSER would fail even if its reduced evidentiary burden—showing technical feasibility of component parts—were the law. *See* Non-State Br. I.A. Of

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the Utility Air Regulatory Group, EPA-HQ-OAR-2013-0495, at 5 (May 9, 2014), JA\_\_\_\_.

particular importance to State Petitioners, EPA has utterly failed to demonstrate the technical feasibility of storage in deep saline formations on a nationwide basis.

For a “system of ... emission reduction” to be “demonstrated,” EPA must show that the system can be implemented on a nation-wide basis. *Costle*, 657 F.2d at 330. But as EPA recognizes, “whether all new steam-generating sources can implement” its BSER is “dependent on the geographic scope,” 80 Fed. Reg. at 64,541, JA\_\_\_\_, and large areas of the U.S.—11 States and parts of many more—do not have any identified deep saline formations, *id.* at 64,576-77, JA\_\_\_\_-\_\_\_\_.

Formations that may be accessible in the remaining States have not been demonstrated to be capable of permanent storage.<sup>8</sup> In fact, EPA acknowledges that not all formations are suitable for sequestration, that site-specific evaluations are critical to selecting a geological site that can permanently contain injected CO<sub>2</sub>, *id.* at 64,573, JA\_\_\_\_, and that no effort has been made to identify formations that are capable of permanent sequestration. In addition, there is no established industry sector operating deep saline formations demonstrated to be capable of permanent CO<sub>2</sub> storage. Developers of new fossil-fuel-fired units thus face significant unknowns in determining how and where to site new units.

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<sup>8</sup> The State of Wisconsin filed a Petition for Reconsideration regarding this issue. *See* Request for Reconsideration of New Source Performance Standards (NSPS) for Greenhouse Gas Emissions From Stationary Sources: Electric Utility Steam Generating Units, Docket ID No. EPA-HQ-OAR-2013-0495 (Dec. 22, 2015), <http://dnr.wi.gov/topic/AirQuality/documents/WI111bReconsiderationRequest20151222.pdf> (“WI Petition”), JA\_\_\_\_-\_\_\_\_.



Furthermore, no CO<sub>2</sub> pipeline system exists to transport CO<sub>2</sub> throughout the country, and the development of any such system will be costly and time-consuming. For States such as Wisconsin that lack proven sequestration resources, EPA failed to consider the costs of transporting captured CO<sub>2</sub> to sequestration sites. WI Petition at 2, JA\_\_\_\_; *see also* EPA, Basis for Denial of Petitions to Reconsider CAA Section 111(b) Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Utility Generating Units (April 2016), at 6, JA\_\_\_\_. Until deep saline formation disposal sites capable of permanent sequestration are identified, developed, and tested by developers of such facilities, and until the pipeline infrastructure is developed to move CO<sub>2</sub> to such sites, even this component of EPA's system cannot be shown to be "adequately demonstrated."<sup>9</sup>

### **III. EPA Failed To Adequately Consider The Costs And Benefits Of The Rule.**

#### **A. EPA Has A Statutory Obligation To Consider Costs And Benefits Under The CAA.**

The CAA requires EPA to consider costs and benefits before imposing a nationwide standard under section 111(b). EPA has failed to adequately satisfy this

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<sup>9</sup> EPA argues that any issue regarding geographic availability of geologic sequestration is "moot[ed]" by EPA's assessment that new utility boilers and IGCC units can "co-fir[e] with natural gas in lieu of installing partial CCS." 80 Fed. Reg. at 64,541, JA\_\_\_\_. But EPA admits that co-firing is not part of its BSER, *id.* at 64,514, JA\_\_\_\_, and therefore it cannot moot EPA's burden to adequately demonstrate its BSER which specifically includes sequestration in "deep saline formations," *id.* at 64,579, JA\_\_\_\_.

statutory prerequisite, which provides another, independent basis for vacating the Rule.

Section 111 requires EPA to “tak[e] into account the costs of achieving such [emission] reduction,” 42 U.S.C. § 7411(a)(1), which “clearly refers to the possible economic impact of the promulgated standards,” *Portland Cement*, 486 F.2d. at 387. To be “adequately demonstrated,” therefore, a system cannot be “exorbitantly costly in an economic ... way.” *Essex*, 486 F.2d at 433; *see also Lignite Energy Council*, 198 F.3d at 933; *Portland Cement Ass’n v. Train*, 513 F.2d 506, 508 (D.C. Cir. 1975). EPA must consider not only the costs of installation and maintenance, but also whether those costs would be passed on to consumers. *See, e.g., Portland Cement*, 486 F.2d at 387-88.

EPA cannot simply consider these costs in a vacuum; rather, it must determine whether any costs are justified by corresponding, offsetting benefits. The CAA limits EPA’s authority to “prescrib[ing] such regulations as are *necessary* to carry out” the agency’s functions. 42 U.S.C. § 7601(a)(1) (emphasis added). In interpreting analogous language elsewhere in the CAA, the Supreme Court held that EPA must, as a component of “rational” rulemaking, compare the “economic costs” of a rule to its purported “health or environmental benefits.” *Michigan*, 135 S. Ct. at 2707.

Indeed, the current Administration has required agencies like EPA to “propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs,” and to “select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits.” Exec. Order No. 13,563, Improving

Regulation and Regulatory Review, 76 Fed. Reg. 3,821 (Jan. 18, 2011), JA\_\_\_\_. Similarly, this Court has held in the analogous context of arbitrary and capricious review under the Administrative Procedure Act that it is unlawful for an agency to fail to consider a rule's "cost[s] at the margin," *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1151 (D.C. Cir. 2011), or to fail to consider the existing regulatory and market "baseline" in considering whether a rule will yield any incremental benefits, *Am. Equity Inv. Life Ins. Co. v. SEC*, 613 F.3d 166, 177-78 (D.C. Cir. 2009).

In at least two ways discussed below, EPA has failed to engage in this type of reasoned cost-benefit analysis, and therefore, has violated the CAA, requiring that the Rule be vacated.

**B. The Rule Should Be Vacated Because EPA Admits That The Rule Is Not Projected To Yield Any Benefits.**

First, EPA effectively concedes that the Rule is not "necessary" to carry out the purposes of the CAA (42 U.S.C. § 7601(a)(1)), by admitting that the Rule "will result in negligible CO<sub>2</sub> emission changes, quantified benefits, and costs by 2022 as a result of the performance standards for newly constructed EGUs." 80 Fed. Reg. at 64,515, JA\_\_\_\_. EPA predicts that "the owners of newly constructed EGUs will likely choose technologies, primarily [natural gas combined cycle], which meet the standards even in the absence of this rule due to existing economic conditions as normal business practice." *Id.* at 64,640, JA\_\_\_\_.

EPA cannot impose a nationwide emission standard on all new fossil-fuel-fired steam generating units if it does not believe that the Rule is likely to actually result in reduced levels of pollution. This Court has rejected similar attempts by agencies to promulgate superfluous rules where the “baseline” level of regulation would produce the same effect. *See, e.g., Am. Equity*, 613 F.3d at 177-78. EPA’s conclusion that the Rule is unnecessary under prevailing economic conditions alone renders it unlawful.

**C. The Rule Should Be Vacated Because EPA’s BSER Is Exorbitantly Costly And Therefore Has Not Been Adequately Demonstrated.**

A second, independent failure by EPA is that it dramatically underestimated the Rule’s costs. EPA failed to recognize that it would be “exorbitantly costly” for a new source to actually implement EPA’s BSER. *Essex*, 486 F.2d at 433.

EPA claims that any costs will be “negligible” because “substantial new construction of uncontrolled fossil steam units is not anticipated under existing prevailing and anticipated future economic conditions.” 80 Fed. Reg. at 64,563, JA\_\_\_\_. But EPA cannot minimize potential costs by arguing that the Rule will not have its intended effect. EPA’s rationale “is tantamount to saying the saving grace of the rule is that it will not entail costs if it is not used,” which this Court has described as “unutterably mindless.” *Bus. Roundtable*, 647 F.3d at 1156.

Assuming that the Rule will actually be *applied* to new sources, as EPA must, the costs to such sources and to energy consumers are prohibitive. The projects cited by EPA that feature some form of CCS technology are more expensive than originally

estimated and depend on government subsidies. For example, at the Kemper facility in Mississippi, total project costs have risen significantly from their original estimates, and, despite receiving substantial federal funding, the project is several years behind schedule. In fact, the facility is not yet fully operational. Moreover, Kemper is dependent on numerous “site-specific characteristics” that “cannot be consistently replicated on a national level.” Comments of Southern Company, EPA-HQ-OAR-2013-0495-10101, at 22 (May 9, 2014), JA\_\_\_\_. Boundary Dam, likewise, despite being less than one-quarter the size of a full-scale power plant, has incurred a total cost of C\$1.24 billion and required C\$240 million in subsidies from the Canadian federal and Saskatchewan provincial governments, as well as proceeds from sales of carbon captured, merely to stay afloat. Comments of Utility Air Regulatory Group, EPA-HQ-OAR-2013-0495-10938, at 129 (May 9, 2014), JA\_\_\_\_\_.

Furthermore, Deputy Assistant Secretary of Energy Julio Friedmann confirmed in congressional testimony the exorbitant costs associated with CCS and testified that CCS would increase electricity prices by as much as 80%. West Virginia Comments, at 6, JA\_\_\_\_. EPA and the Congressional Budget Office have made similar findings. *See* 77 Fed. Reg. 22,391, 22,415-16 (Apr. 13, 2012), JA\_\_\_\_-\_\_\_\_; Congressional Budget Office, Federal Efforts to Reduce the Cost of Capturing and Storing Carbon Dioxide, June 2012, at 7-9, JA\_\_\_\_-\_\_\_\_. EPA’s failure to meaningfully consider these costs, and to reject this system in light of the significant costs to new sources and negligible projected environmental benefits, requires that the Rule be vacated.

The record also reflects that gas-fired units have been treated differently from coal-fired units. “Inter-industry comparison in the case of industries producing substitute or alternative products ... bears on the issue of ‘economic cost.’” *Portland Cement*, 486 F.2d at 390. EPA’s failure to justify its differential treatment of new baseload gas-fired units versus new baseload gas-fired units violates the CAA’s requirement to appropriately consider costs and necessitates vacatur of the Rule. *See* Non-State Br. II (citing *Airmark Corp. v. FAA*, 758 F.2d 685, 691, 694 (D.C. Cir. 1985)).

#### **IV. EPA Failed To Make The Statutorily-Required Endangerment And Significant Contribution Findings.**

Finally, EPA exceeded its authority by imposing a new nationwide emission standard without first making two findings required by section 111(b) of the CAA. EPA’s failure to consider these required factors renders the Rule unlawful. *See State Farm*, 463 U.S. at 43.

Section 111(b) requires EPA to make two findings before issuing new emission limits for new sources. *First*, EPA must find that the air pollutant it seeks to regulate “may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7411(b)(1)(A). *Second*, EPA must find that the source category “contributes significantly” to that endangerment. *Id.*

EPA bypassed these straightforward prerequisites when, for the first time in the Rule, it regulated a *new* pollutant (CO<sub>2</sub>) from a *new* source category (fossil-fuel-

fired electricity generating units). To accomplish this sleight-of-hand, EPA first claimed erroneously that it previously regulated this same source category. 80 Fed. Reg. at 64,529, JA\_\_\_\_. That is not so. *See* Non-State Br. IV.

Separately, EPA claims that the statute empowers it to regulate *any* pollutant from a previously listed source category so long as it made an endangerment finding with respect to *any* pollutant emitted from the source category at some point in the past. *See id.* But EPA's construction of the statute fails scrutiny. As a textual matter, the endangerment requirement modifies, and relates back to, "air pollution," not "sources." 42 U.S.C. § 7411(b)(1)(A). Only when EPA determines that a particular pollutant poses a threat to health or welfare must the agency inquire whether the "sources" significantly contribute to that pollution. *See id.*

Any other reading, in context, would impermissibly modify and undermine the entire statutory scheme. *Cf. Burwell*, 135 S. Ct. at 2489. It would make no sense for Congress to have provided EPA with a blank check to regulate multiple pollutants from a given source category so long as it had initially made an endangerment finding with respect to a single, unrelated pollutant. But that is the logical result of EPA's interpretation.

Ultimately, EPA recognizes that its reading of the statute cannot be correct, because it adopts and applies an extra-textual test that it claims should apply when it regulates new pollutants from previously-listed source categories, i.e., that EPA needs

a “rational basis” for the Rule. 80 Fed. Reg. 64,530, JA\_\_\_\_. EPA’s invented test exceeds its discretion under the CAA, however, for multiple independent reasons.

*First*, EPA cannot adopt a new standard that has no mooring whatsoever in the text of the CAA, and indeed, conflicts with the standard that the CAA explicitly adopts for the same analysis.

*Second*, the “rational basis” test also undermines the structure of the statute in the same way as EPA’s principal position that the CAA imposes no endangerment requirement for new pollutants from previously-listed sources. It is implausible that Congress would have imposed one, more rigorous standard to whatever pollutant EPA decided to regulate first from a listed source category, and then one more relaxed standard for whatever subsequent pollutants EPA decided to regulate from that same source category. That conclusion is confirmed by other endangerment provisions in the CAA, which EPA concedes require findings for each specific pollutant. 80 Fed. Reg. at 64,530 (citing the CAA §§ 202(a)(1), 211(c)(1), 231(a)(2)(A)), JA\_\_\_\_\_.

*Third*, a “rational basis” test does not address the key question that the endangerment findings were designed to answer, namely, the scientific inquiry into whether a particular pollutant causes significant harm to health or welfare. *See Coal. for Responsible Regulation*, 684 F.3d 102, 118 (D.C. Cir. 2012). Instead, the “rational basis” test is a standard of review that asks whether the government’s selected policy has “some legitimate governmental purpose.” *Heller v. Doe*, 509 U.S. 312, 320 (1993). The



Supreme Court, however, has “rebuffed an[y] attempt by EPA itself to inject considerations of policy into its [emission] decision[s],” because “[t]he statute speaks in terms of endangerment, not in terms of policy.” *Coal. for Responsible Regulation*, 684 F.3d at 118 (citing *Massachusetts v. EPA*, 549 U.S. 497, 534-35 (2007)). Thus, EPA’s invented “rational basis” test addresses itself to the wrong question, and this Court should reject it.

### CONCLUSION

For the foregoing reasons, the petitions should be granted and the Rule vacated.

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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 State Petitioners' Opening Brief contains 8,897 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 13, 2016

/s/ Elbert Lin

Elbert Lin

**CERTIFICATE OF SERVICE**

I hereby certify that, on this 13th day of October 2016, a copy of the foregoing State Petitioners' Opening Brief was served electronically through the Court's CM/ECF system on all ECF-registered counsel.

/s/ Elbert Lin

Elbert Lin

ORAL ARGUMENT NOT YET SCHEDULED

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No. 15-1381 (and consolidated cases)

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

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STATE OF NORTH DAKOTA, *et al.*,*Petitioners,*

v.

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

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**On Petition for Review of Final Agency Actions of the  
United States Environmental Protection Agency  
80 Fed. Reg. 64,510 (Oct. 23, 2015) and  
81 Fed. Reg. 27,442 (May 6, 2016)**

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**ADDENDUM PURSUANT TO CIRCUIT RULE 28(a)(5) TO STATE  
PETITIONERS' OPENING BRIEF**

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## TABLE OF CONTENTS

### **Statutes:**

26 U.S.C. § 48A.....	ADD-01
29 U.S.C. § 794.....	ADD-06
42 U.S.C. § 15962.....	ADD-09
42 U.S.C. § 7411.....	ADD-12
42 U.S.C. § 7601.....	ADD-19
42 U.S.C. § 7607.....	ADD-21
42 U.S.C. § 13573.....	ADD-27
42 U.S.C. § 13574.....	ADD-28

### **Regulation:**

40 C.F.R. Part 60, Subpart TTTT and Parts 70, 71, and 98.....	ADD-30
---	--------

not made, shall be determined as though this section (other than this paragraph) has not been enacted.

“(D) RULES RELATING TO ELECTIONS.—An election under this paragraph shall be made not later than the day which is 90 days after the date of the enactment of this Act [Oct. 4, 1976], by filing a notification of such election with the national office of the Internal Revenue Service. Such an election, once made, shall be irrevocable.”

ENTITLEMENT TO CREDIT

Pub. L. 94-455, title VIII, §804(d), Oct. 4, 1976, 90 Stat. 1596, as amended by Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095, provided that: “Paragraph (1) of section 48(k) of the Internal Revenue Code of 1986 [formerly I.R.C. 1954] (relating to entitlement to credit) shall apply to any motion picture film or video tape placed in service in any taxable year beginning before January 1, 1975.”

INCREASE IN BASIS OF PROPERTY PLACED IN SERVICE BEFORE JANUARY 1, 1964

Pub. L. 88-272, title II, §203(a)(2), Feb. 26, 1964, 78 Stat. 33, as amended by Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095, provided that:

“(A) The basis of any section 38 property (as defined in section 48(a) of the Internal Revenue Code of 1986 [formerly I.R.C. 1954]) placed in service before January 1, 1964, shall be increased, under regulations prescribed by the Secretary of the Treasury or his delegate, by an amount equal to 7 percent of the qualified investment with respect to such property under section 46(c) of the Internal Revenue Code of 1986. If there has been any increase with respect to such property under section 48(g)(2) of such Code, the increase under the preceding sentence shall be appropriately reduced therefor.

“(B) If a lessor made the election provided by section 48(d) of the Internal Revenue Code of 1986 with respect to property placed in service before January 1, 1964—

“(i) subparagraph (A) shall not apply with respect to such property, but

“(ii) under regulations prescribed by the Secretary of the Treasury or his delegate, the deductions otherwise allowable under section 162 of such Code to the lessee for amounts paid to the lessor under the lease (or, if such lessee has purchased such property, the basis of such property) shall be adjusted in a manner consistent with subparagraph (A).

“(C) The adjustments under this paragraph shall be made as of the first day of the taxpayer’s first taxable year which begins after December 31, 1963.”

**§ 48A. Qualifying advanced coal project credit**

**(a) In general**

For purposes of section 46, the qualifying advanced coal project credit for any taxable year is an amount equal to—

(1) 20 percent of the qualified investment for such taxable year in the case of projects described in subsection (d)(3)(B)(i),

(2) 15 percent of the qualified investment for such taxable year in the case of projects described in subsection (d)(3)(B)(ii), and

(3) 30 percent of the qualified investment for such taxable year in the case of projects described in clause (iii) of subsection (d)(3)(B).

**(b) Qualified investment**

**(1) In general**

For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible property placed in service by the taxpayer during such taxable year which is part of a qualifying advanced coal project—

(A)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or

(ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and

(B) with respect to which depreciation (or amortization in lieu of depreciation) is allowable.

**(2) Special rule for certain subsidized property**

Rules similar to section 48(a)(4) (without regard to subparagraph (D) thereof) shall apply for purposes of this section.

**(3) Certain qualified progress expenditures rules made applicable**

Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

**(c) Definitions**

For purposes of this section—

**(1) Qualifying advanced coal project**

The term “qualifying advanced coal project” means a project which meets the requirements of subsection (e).

**(2) Advanced coal-based generation technology**

The term “advanced coal-based generation technology” means a technology which meets the requirements of subsection (f).

**(3) Eligible property**

The term “eligible property” means—

(A) in the case of any qualifying advanced coal project using an integrated gasification combined cycle, any property which is a part of such project and is necessary for the gasification of coal, including any coal handling and gas separation equipment, and

(B) in the case of any other qualifying advanced coal project, any property which is a part of such project.

**(4) Coal**

The term “coal” means anthracite, bituminous coal, subbituminous coal, lignite, and peat.

**(5) Greenhouse gas capture capability**

The term “greenhouse gas capture capability” means an integrated gasification combined cycle technology facility capable of adding components which can capture, separate on a long-term basis, isolate, remove, and sequester greenhouse gases which result from the generation of electricity.

**(6) Electric generation unit**

The term “electric generation unit” means any facility at least 50 percent of the total annual net output of which is electrical power, including an otherwise eligible facility which is used in an industrial application.

**(7) Integrated gasification combined cycle**

The term “integrated gasification combined cycle” means an electric generation unit which produces electricity by converting coal to synthesis gas which is used to fuel a combined-cycle plant which produces electricity from both a combustion turbine (including a combustion turbine/fuel cell hybrid) and a steam turbine.

**(d) Qualifying advanced coal project program****(1) Establishment**

Not later than 180 days after the date of enactment of this section, the Secretary, in consultation with the Secretary of Energy, shall establish a qualifying advanced coal project program for the deployment of advanced coal-based generation technologies.

**(2) Certification****(A) Application period**

Each applicant for certification under this paragraph shall submit an application meeting the requirements of subparagraph (B). An applicant may only submit an application—

(i) for an allocation from the dollar amount specified in clause (i) or (ii) of paragraph (3)(B) during the 3-year period beginning on the date the Secretary establishes the program under paragraph (1), and

(ii) for an allocation from the dollar amount specified in paragraph (3)(B)(iii) during the 3-year period beginning at the earlier of the termination of the period described in clause (i) or the date prescribed by the Secretary.

**(B) Requirements for applications for certification**

An application under subparagraph (A) shall contain such information as the Secretary may require in order to make a determination to accept or reject an application for certification as meeting the requirements under subsection (e)(1). Any information contained in the application shall be protected as provided in section 552(b)(4) of title 5, United States Code.

**(C) Time to act upon applications for certification**

The Secretary shall issue a determination as to whether an applicant has met the requirements under subsection (e)(1) within 60 days following the date of submittal of the application for certification.

**(D) Time to meet criteria for certification**

Each applicant for certification shall have 2 years from the date of acceptance by the Secretary of the application during which to provide to the Secretary evidence that the criteria set forth in subsection (e)(2) have been met.

**(E) Period of issuance**

An applicant which receives a certification shall have 5 years from the date of issuance of the certification in order to place the project in service and if such project is not placed in service by that time period then the certification shall no longer be valid.

**(3) Aggregate credits****(A) In general**

The aggregate credits allowed under subsection (a) for projects certified by the Secretary under paragraph (2) may not exceed \$2,550,000,000.

**(B) Particular projects**

Of the dollar amount in subparagraph (A), the Secretary is authorized to certify—

(i) \$800,000,000 for integrated gasification combined cycle projects the application for which is submitted during the period described in paragraph (2)(A)(i),

(ii) \$500,000,000 for projects which use other advanced coal-based generation technologies the application for which is submitted during the period described in paragraph (2)(A)(i), and

(iii) \$1,250,000,000 for advanced coal-based generation technology projects the application for which is submitted during the period described in paragraph (2)(A)(ii).

**(4) Review and redistribution****(A) Review**

Not later than 6 years after the date of enactment of this section, the Secretary shall review the credits allocated under this section as of the date which is 6 years after the date of enactment of this section.

**(B) Redistribution**

The Secretary may reallocate credits available under clauses (i) and (ii) of paragraph (3)(B) if the Secretary determines that—

(i) there is an insufficient quantity of qualifying applications for certification pending at the time of the review, or

(ii) any certification made pursuant to paragraph (2) has been revoked pursuant to paragraph (2)(D) because the project subject to the certification has been delayed as a result of third party opposition or litigation to the proposed project.

**(C) Reallocation**

If the Secretary determines that credits under clause (i) or (ii) of paragraph (3)(B) are available for reallocation pursuant to the requirements set forth in paragraph (2), the Secretary is authorized to conduct an additional program for applications for certification.

**(5) Disclosure of allocations**

The Secretary shall, upon making a certification under this subsection or section 48B(d), publicly disclose the identity of the applicant and the amount of the credit certified with respect to such applicant.

**(e) Qualifying advanced coal projects****(1) Requirements**

For purposes of subsection (c)(1), a project shall be considered a qualifying advanced coal project that the Secretary may certify under subsection (d)(2) if the Secretary determines that, at a minimum—

(A) the project uses an advanced coal-based generation technology—

(i) to power a new electric generation unit; or

(ii) to retrofit or repower an existing electric generation unit (including an existing natural gas-fired combined cycle unit);

(B) the fuel input for the project, when completed, is at least 75 percent coal;

(C) the project, consisting of one or more electric generation units at one site, will

have a total nameplate generating capacity of at least 400 megawatts;

(D) the applicant provides evidence that a majority of the output of the project is reasonably expected to be acquired or utilized;

(E) the applicant provides evidence of ownership or control of a site of sufficient size to allow the proposed project to be constructed and to operate on a long-term basis;

(F) the project will be located in the United States; and

(G) in the case of any project the application for which is submitted during the period described in subsection (d)(2)(A)(ii), the project includes equipment which separates and sequesters at least 65 percent (70 percent in the case of an application for reallocated credits under subsection (d)(4)) of such project's total carbon dioxide emissions.

**(2) Requirements for certification**

For the purpose of subsection (d)(2)(D), a project shall be eligible for certification only if the Secretary determines that—

(A) the applicant for certification has received all Federal and State environmental authorizations or reviews necessary to commence construction of the project; and

(B) the applicant for certification, except in the case of a retrofit or repower of an existing electric generation unit, has purchased or entered into a binding contract for the purchase of the main steam turbine or turbines for the project, except that such contract may be contingent upon receipt of a certification under subsection (d)(2).

**(3) Priority for certain projects**

In determining which qualifying advanced coal projects to certify under subsection (d)(2), the Secretary shall—

(A) certify capacity, in accordance with the procedures set forth in subsection (d), in relatively equal amounts to—

- (i) projects using bituminous coal as a primary feedstock,
- (ii) projects using subbituminous coal as a primary feedstock, and
- (iii) projects using lignite as a primary feedstock,

(B) give high priority to projects which include, as determined by the Secretary—

- (i) greenhouse gas capture capability,
- (ii) increased by-product utilization,
- (iii) applicant participants who have a research partnership with an eligible educational institution (as defined in section 529(e)(5)), and
- (iv) other benefits, and

(C) give highest priority to projects with the greatest separation and sequestration percentage of total carbon dioxide emissions.

**(f) Advanced coal-based generation technology**

**(1) In general**

For the purpose of this section, an electric generation unit uses advanced coal-based generation technology if—

- (A) the unit—
  - (i) uses integrated gasification combined cycle technology, or

(ii) except as provided in paragraph (3), has a design net heat rate of 8530 Btu/kWh (40 percent efficiency), and

(B) the unit is designed to meet the performance requirements in the following table:

Performance characteristic:	Design level for project:
SO <sub>2</sub> (percent removal) ....	99 percent
NO <sub>x</sub> (emissions) .....	0.07 lbs/MMBTU
PM* (emissions) .....	0.015 lbs/MMBTU
Hg (percent removal) .....	90 percent

For purposes of the performance requirement specified for the removal of SO<sub>2</sub> in the table contained in subparagraph (B), the SO<sub>2</sub> removal design level in the case of a unit designed for the use of feedstock substantially all of which is subbituminous coal shall be 99 percent SO<sub>2</sub> removal or the achievement of an emission level of 0.04 pounds or less of SO<sub>2</sub> per million Btu, determined on a 30-day average.

**(2) Design net heat rate**

For purposes of this subsection, design net heat rate with respect to an electric generation unit shall—

(A) be measured in Btu per kilowatt hour (higher heating value),

(B) be based on the design annual heat input to the unit and the rated net electrical power, fuels, and chemicals output of the unit (determined without regard to the cogeneration of steam by the unit),

(C) be adjusted for the heat content of the design coal to be used by the unit—

(i) if the heat content is less than 13,500 Btu per pound, but greater than 7,000 Btu per pound, according to the following formula: design net heat rate = unit net heat rate x [1-(((13,500-design coal heat content, Btu per pound)/1,000)\* 0.013)], and

(ii) if the heat content is less than or equal to 7,000 Btu per pound, according to the following formula: design net heat rate = unit net heat rate x [1-(((13,500-design coal heat content, Btu per pound)/1,000)\* 0.018)], and

(D) be corrected for the site reference conditions of—

- (i) elevation above sea level of 500 feet,
- (ii) air pressure of 14.4 pounds per square inch absolute,
- (iii) temperature, dry bulb of 63°F,
- (iv) temperature, wet bulb of 54°F, and
- (v) relative humidity of 55 percent.

**(3) Existing units**

In the case of any electric generation unit in existence on the date of the enactment of this section, such unit uses advanced coal-based generation technology if, in lieu of the requirements under paragraph (1)(A)(ii), such unit achieves a minimum efficiency of 35 percent and an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

- (A) 7 percentage points for coal of more than 9,000 Btu,
- (B) 6 percentage points for coal of 7,000 to 9,000 Btu, or



(C) 4 percentage points for coal of less than 7,000 Btu.

**(g) Applicability**

No use of technology (or level of emission reduction solely by reason of the use of the technology), and no achievement of any emission reduction by the demonstration of any technology or performance level, by or at one or more facilities with respect to which a credit is allowed under this section, shall be considered to indicate that the technology or performance level is—

(1) adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411);

(2) achievable for purposes of section 169 of that Act (42 U.S.C. 7479); or

(3) achievable in practice for purposes of section 171 of such Act (42 U.S.C. 7501).

**(h) Competitive certification awards modification authority**

In implementing this section or section 48B, the Secretary is directed to modify the terms of any competitive certification award and any associated closing agreement where such modification—

(1) is consistent with the objectives of such section,

(2) is requested by the recipient of the competitive certification award, and

(3) involves moving the project site to improve the potential to capture and sequester carbon dioxide emissions, reduce costs of transporting feedstock, and serve a broader customer base,

unless the Secretary determines that the dollar amount of tax credits available to the taxpayer under such section would increase as a result of the modification or such modification would result in such project not being originally certified. In considering any such modification, the Secretary shall consult with other relevant Federal agencies, including the Department of Energy.

**(i) Recapture of credit for failure to sequester**

The Secretary shall provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any project which fails to attain or maintain the separation and sequestration requirements of subsection (e)(1)(G).

(Added Pub. L. 109–58, title XIII, §1307(b), Aug. 8, 2005, 119 Stat. 999; amended Pub. L. 109–432, div. A, title II, §203(a), Dec. 20, 2006, 120 Stat. 2945; Pub. L. 110–172, §11(a)(10), Dec. 29, 2007, 121 Stat. 2485; Pub. L. 110–234, title XV, §15346(a), May 22, 2008, 122 Stat. 1523; Pub. L. 110–246, §4(a), title XV, §15346(a), June 18, 2008, 122 Stat. 1664, 2285; Pub. L. 110–343, div. B, title I, §111(a)–(d), Oct. 3, 2008, 122 Stat. 3822, 3823; Pub. L. 111–5, div. B, title I, §1103(b)(2)(C), Feb. 17, 2009, 123 Stat. 321.)

REFERENCES IN TEXT

The enactment of the Revenue Reconciliation Act of 1990, referred to in subsec. (b)(3), is the date of enactment of title XI of Pub. L. 101–508, which was approved Nov. 5, 1990.

The date of enactment of this section, referred to in subsecs. (d)(1), (4)(A) and (f)(3), is the date of enactment of Pub. L. 109–58, which was approved Aug. 8, 2005.

CODIFICATION

Pub. L. 110–234 and Pub. L. 110–246 made identical amendments to this section. The amendments by Pub. L. 110–234 were repealed by section 4(a) of Pub. L. 110–246.

AMENDMENTS

2009—Subsec. (b)(2). Pub. L. 111–5 inserted “(without regard to subparagraph (D) thereof)” after “section 48(a)(4)”.

2008—Subsec. (a)(3). Pub. L. 110–343, §111(a), added par. (3).

Subsec. (d)(2)(A). Pub. L. 110–343, §111(c)(2), reenacted heading without change and amended text generally. Prior to amendment, text read as follows: “Each applicant for certification under this paragraph shall submit an application meeting the requirements of subparagraph (B). An applicant may only submit an application during the 3-year period beginning on the date the Secretary establishes the program under paragraph (1).”

Subsec. (d)(3)(A). Pub. L. 110–343, §111(b), substituted “\$2,550,000,000” for “\$1,300,000,000”.

Subsec. (d)(3)(B). Pub. L. 110–343, §111(c)(1), reenacted heading without change and amended text generally. Prior to amendment, text read as follows: “Of the dollar amount in subparagraph (A), the Secretary is authorized to certify—

“(i) \$800,000,000 for integrated gasification combined cycle projects, and

“(ii) \$500,000,000 for projects which use other advanced coal-based generation technologies.”

Subsec. (d)(5). Pub. L. 110–343, §111(d), added par. (5).

Subsec. (e)(1)(G). Pub. L. 110–343, §111(c)(3)(A), added subpar. (G).

Subsec. (e)(3). Pub. L. 110–343, §111(c)(5), substituted “certain” for “integrated gasification combined cycle” in heading.

Subsec. (e)(3)(B)(iii), (iv). Pub. L. 110–343, §111(c)(4), added cl. (iii) and redesignated former cl. (iii) as (iv).

Subsec. (e)(3)(C). Pub. L. 110–343, §111(c)(3)(B), added subpar. (C).

Subsec. (h). Pub. L. 110–246, §15346(a), added subsec. (h).

Subsec. (i). Pub. L. 110–343, §111(c)(3)(C), added subsec. (i).

2007—Subsec. (d)(4)(B)(ii). Pub. L. 110–172 struck out “subsection” before “paragraph” in two places.

2006—Subsec. (f)(1). Pub. L. 109–432 inserted concluding provisions.

EFFECTIVE DATE OF 2009 AMENDMENT

Amendment by Pub. L. 111–5 applicable to periods after Dec. 31, 2008, under rules similar to the rules of section 48(m) of this title as in effect on the day before Nov. 5, 1990, see section 1103(c)(1) of Pub. L. 111–5, set out as a note under section 25C of this title.

EFFECTIVE DATE OF 2008 AMENDMENT

Pub. L. 110–343, div. B, title I, §111(e), Oct. 3, 2008, 122 Stat. 3823, provided that:

“(1) IN GENERAL.—Except as otherwise provided in this subsection, the amendments made by this section [amending this section] shall apply to credits the application for which is submitted during the period described in section 48A(d)(2)(A)(ii) of the Internal Revenue Code of 1986 and which are allocated or reallocated after the date of the enactment of this Act [Oct. 3, 2008].

“(2) DISCLOSURE OF ALLOCATIONS.—The amendment made by subsection (d) [amending this section] shall apply to certifications made after the date of the enactment of this Act.

“(3) CLERICAL AMENDMENT.—The amendment made by subsection (c)(5) [amending this section] shall take effect as if included in the amendment made by section 1307(b) of the Energy Tax Incentives Act of 2005 [Pub. L. 109–58].”

Amendment of this section and repeal of Pub. L. 110–234 by Pub. L. 110–246 effective May 22, 2008, the

date of enactment of Pub. L. 110-234, except as otherwise provided, see section 4 of Pub. L. 110-246, set out as an Effective Date note under section 8701 of Title 7, Agriculture.

Pub. L. 110-234, title XV, §15346(b), May 22, 2008, 122 Stat. 1523, and Pub. L. 110-246, §4(a), title XV, §15346(b), June 18, 2008, 122 Stat. 1664, 2285, provided that: "The amendment made by this section [amending this section] shall take effect on the date of the enactment of this Act [June 18, 2008] and is applicable to all competitive certification awards entered into under section 48A or 48B of the Internal Revenue Code of 1986, whether such awards were issued before, on, or after such date of enactment."

[Pub. L. 110-234 and Pub. L. 110-246 enacted identical provisions. Pub. L. 110-234 was repealed by section 4(a) of Pub. L. 110-246, set out as a note under section 8701 of Title 7, Agriculture.]

#### EFFECTIVE DATE OF 2006 AMENDMENT

Pub. L. 109-432, div. A, title II, §203(b), Dec. 20, 2006, 120 Stat. 2945, provided that: "The amendment made by this section [amending this section] shall take apply [sic] with respect to applications for certification under section 48A(d)(2) of the Internal Revenue Code of 1986 submitted after October 2, 2006."

#### EFFECTIVE DATE

Section applicable to periods after Aug. 8, 2005, under rules similar to the rules of section 48(m) of this title, as in effect on the day before Nov. 5, 1990, see section 1307(d) of Pub. L. 109-58, set out as an Effective Date of 2005 Amendment note under section 46 of this title.

### § 48B. Qualifying gasification project credit

#### (a) In general

For purposes of section 46, the qualifying gasification project credit for any taxable year is an amount equal to 20 percent (30 percent in the case of credits allocated under subsection (d)(1)(B)) of the qualified investment for such taxable year.

#### (b) Qualified investment

##### (1) In general

For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible property placed in service by the taxpayer during such taxable year which is part of a qualifying gasification project—

(A)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or

(ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and

(B) with respect to which depreciation (or amortization in lieu of depreciation) is allowable.

##### (2) Special rule for certain subsidized property

Rules similar to section 48(a)(4) (without regard to subparagraph (D) thereof) shall apply for purposes of this section.

##### (3) Certain qualified progress expenditures rules made applicable

Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

#### (c) Definitions

For purposes of this section—

#### (1) Qualifying gasification project

The term "qualifying gasification project" means any project which—

(A) employs gasification technology,

(B) will be carried out by an eligible entity, and

(C) any portion of the qualified investment of which is certified under the qualifying gasification program as eligible for credit under this section in an amount (not to exceed \$650,000,000) determined by the Secretary.

#### (2) Gasification technology

The term "gasification technology" means any process which converts a solid or liquid product from coal, petroleum residue, biomass, or other materials which are recovered for their energy or feedstock value into a synthesis gas composed primarily of carbon monoxide and hydrogen for direct use or subsequent chemical or physical conversion.

#### (3) Eligible property

The term "eligible property" means any property which is a part of a qualifying gasification project and is necessary for the gasification technology of such project.

#### (4) Biomass

##### (A) In general

The term "biomass" means any—

(i) agricultural or plant waste,

(ii) byproduct of wood or paper mill operations, including lignin in spent pulping liquors, and

(iii) other products of forestry maintenance.

##### (B) Exclusion

The term "biomass" does not include paper which is commonly recycled.

#### (5) Carbon capture capability

The term "carbon capture capability" means a gasification plant design which is determined by the Secretary to reflect reasonable consideration for, and be capable of, accommodating the equipment likely to be necessary to capture carbon dioxide from the gaseous stream, for later use or sequestration, which would otherwise be emitted in the flue gas from a project which uses a nonrenewable fuel.

#### (6) Coal

The term "coal" means anthracite, bituminous coal, subbituminous coal, lignite, and peat.

#### (7) Eligible entity

The term "eligible entity" means any person whose application for certification is principally intended for use in a domestic project which employs domestic gasification applications related to—

(A) chemicals,

(B) fertilizers,

(C) glass,

(D) steel,

(E) petroleum residues,

(F) forest products,

(G) agriculture, including feedlots and dairy operations, and

**(b) Administrative enforcement; complaints; investigations; departmental action**

If any individual with a disability believes any contractor has failed or refused to comply with the provisions of a contract with the United States, relating to employment of individuals with disabilities, such individual may file a complaint with the Department of Labor. The Department shall promptly investigate such complaint and shall take such action thereon as the facts and circumstances warrant, consistent with the terms of such contract and the laws and regulations applicable thereto.

**(c) Waiver by President; national interest special circumstances for waiver of particular agreements; waiver by Secretary of Labor of affirmative action requirements**

(1) The requirements of this section may be waived, in whole or in part, by the President with respect to a particular contract or subcontract, in accordance with guidelines set forth in regulations which the President shall prescribe, when the President determines that special circumstances in the national interest so require and states in writing the reasons for such determination.

(2)(A) The Secretary of Labor may waive the requirements of the affirmative action clause required by regulations promulgated under subsection (a) of this section with respect to any of a prime contractor's or subcontractor's facilities that are found to be in all respects separate and distinct from activities of the prime contractor or subcontractor related to the performance of the contract or subcontract, if the Secretary of Labor also finds that such a waiver will not interfere with or impede the effectuation of this chapter.

(B) Such waivers shall be considered only upon the request of the contractor or subcontractor. The Secretary of Labor shall promulgate regulations that set forth the standards used for granting such a waiver.

**(d) Standards used in determining violation of section**

The standards used to determine whether this section has been violated in a complaint alleging nonaffirmative action employment discrimination under this section shall be the standards applied under title I of the Americans with Disabilities Act of 1990 (42 U.S.C. 12111 et seq.) and the provisions of sections 501 through 504, and 510,<sup>1</sup> of the Americans with Disabilities Act of 1990 (42 U.S.C. 12201–12204 and 12210), as such sections relate to employment.

**(e) Avoidance of duplicative efforts and inconsistencies**

The Secretary shall develop procedures to ensure that administrative complaints filed under this section and under the Americans with Disabilities Act of 1990 [42 U.S.C. 12101 et seq.] are dealt with in a manner that avoids duplication of effort and prevents imposition of inconsistent or conflicting standards for the same requirements under this section and the Americans with Disabilities Act of 1990.

(Pub. L. 93–112, title V, §503, Sept. 26, 1973, 87 Stat. 393; Pub. L. 95–602, title I, §122(d)(1), Nov.

6, 1978, 92 Stat. 2987; Pub. L. 99–506, title I, §103(d)(2)(B), (C), title X, §§1001(f)(2), (3), 1002(e)(3), Oct. 21, 1986, 100 Stat. 1810, 1843, 1844; Pub. L. 100–630, title II, §206(c), Nov. 7, 1988, 102 Stat. 3312; Pub. L. 102–569, title I, §102(p)(31), title V, §505, Oct. 29, 1992, 106 Stat. 4360, 4427.)

REFERENCES IN TEXT

The Americans with Disabilities Act of 1990, referred to in subsecs. (d) and (e), is Pub. L. 101–336, July 26, 1990, 104 Stat. 327, which is classified principally to chapter 126 (§12101 et seq.) of Title 42, The Public Health and Welfare. Title I of the Act is classified generally to subchapter I (§12111 et seq.) of chapter 126 of Title 42. Section 510 of the Act was renumbered section 511 by Pub. L. 110–325, §6(a)(2), Sept. 25, 2008, 122 Stat. 3558. For complete classification of this Act to the Code, see Short Title note set out under section 12101 of Title 42 and Tables.

AMENDMENTS

1992—Subsec. (a). Pub. L. 102–569, §102(p)(31)(A), 505(a), substituted “\$10,000” for “\$2,500” in two places, struck out “, in employing persons to carry out such contract,” after “contain a provision requiring that”, and substituted “individuals with disabilities” for “individuals with handicaps as defined in section 706(8) of this title”.

Subsec. (b). Pub. L. 102–569, §102(p)(31)(B), substituted “individual with a disability” for “individual with handicaps” and “individuals with disabilities” for “individuals with handicaps”.

Subsec. (c). Pub. L. 102–569, §505(b), designated existing provisions as par. (1) and added par. (2).

Subsecs. (d), (e). Pub. L. 102–569, §505(c), added subsecs. (d) and (e).

1988—Subsec. (a). Pub. L. 100–630, §206(c)(1), inserted a comma after “to carry out such contract”.

Subsec. (b). Pub. L. 100–630, §206(c)(2), substituted “refused” for “refuses”.

Subsec. (c). Pub. L. 100–630, §206(c)(3), substituted “which the President” for “which The President” and “when the President” for “when The President”.

1986—Subsec. (a). Pub. L. 99–506, §§103(d)(2)(C), 1002(e)(3), substituted “individuals with handicaps” for “handicapped individuals” and “section 706(8) of this title” for “section 706(7) of this title”.

Subsec. (b). Pub. L. 99–506, §§103(d)(2)(B), (C), 1001(f)(2), substituted “individual with handicaps” for “handicapped individual”, “individuals with handicaps” for “handicapped individuals”, and “a contract” for “his contract”.

Subsec. (c). Pub. L. 99–506, §1001(f)(3), substituted “The President” for “he” in two places and substituted “the reasons” for “his reasons”.

1978—Subsec. (a). Pub. L. 95–602 substituted “section 706(7) of this title” for “section 706(6) of this title”.

**§ 794. Nondiscrimination under Federal grants and programs**

**(a) Promulgation of rules and regulations**

No otherwise qualified individual with a disability in the United States, as defined in section 705(20) of this title, shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. The head of each such agency shall promulgate such regulations as may be necessary to carry out the amendments to this section made by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Act of 1978. Copies of any

<sup>1</sup>See References in Text note below.

proposed regulation shall be submitted to appropriate regulation authorizing committees of the Congress, and such regulation may take effect no earlier than the thirtieth day after the date on which such regulation is so submitted to such committees.

**(b) “Program or activity” defined**

For the purposes of this section, the term “program or activity” means all of the operations of—

(1)(A) a department, agency, special purpose district, or other instrumentality of a State or of a local government; or

(B) the entity of such State or local government that distributes such assistance and each such department or agency (and each other State or local government entity) to which the assistance is extended, in the case of assistance to a State or local government;

(2)(A) a college, university, or other post-secondary institution, or a public system of higher education; or

(B) a local educational agency (as defined in section 7801 of title 20), system of career and technical education, or other school system;

(3)(A) an entire corporation, partnership, or other private organization, or an entire sole proprietorship—

(i) if assistance is extended to such corporation, partnership, private organization, or sole proprietorship as a whole; or

(ii) which is principally engaged in the business of providing education, health care, housing, social services, or parks and recreation; or

(B) the entire plant or other comparable, geographically separate facility to which Federal financial assistance is extended, in the case of any other corporation, partnership, private organization, or sole proprietorship; or

(4) any other entity which is established by two or more of the entities described in paragraph (1), (2), or (3);

any part of which is extended Federal financial assistance.

**(c) Significant structural alterations by small providers**

Small providers are not required by subsection (a) of this section to make significant structural alterations to their existing facilities for the purpose of assuring program accessibility, if alternative means of providing the services are available. The terms used in this subsection shall be construed with reference to the regulations existing on March 22, 1988.

**(d) Standards used in determining violation of section**

The standards used to determine whether this section has been violated in a complaint alleging employment discrimination under this section shall be the standards applied under title I of the Americans with Disabilities Act of 1990 (42 U.S.C. 12111 et seq.) and the provisions of sections 501 through 504, and 510,<sup>1</sup> of the Americans with Disabilities Act of 1990 (42 U.S.C.

12201–12204 and 12210), as such sections relate to employment.

(Pub. L. 93–112, title V, §504, Sept. 26, 1973, 87 Stat. 394; Pub. L. 95–602, title I, §§119, 122(d)(2), Nov. 6, 1978, 92 Stat. 2982, 2987; Pub. L. 99–506, title I, §103(d)(2)(B), title X, §1002(e)(4), Oct. 21, 1986, 100 Stat. 1810, 1844; Pub. L. 100–259, §4, Mar. 22, 1988, 102 Stat. 29; Pub. L. 100–630, title II, §206(d), Nov. 7, 1988, 102 Stat. 3312; Pub. L. 102–569, title I, §102(p)(32), title V, §506, Oct. 29, 1992, 106 Stat. 4360, 4428; Pub. L. 103–382, title III, §394(i)(2), Oct. 20, 1994, 108 Stat. 4029; Pub. L. 105–220, title IV, §408(a)(3), Aug. 7, 1998, 112 Stat. 1203; Pub. L. 107–110, title X, §1076(u)(2), Jan. 8, 2002, 115 Stat. 2093; Pub. L. 113–128, title IV, §456(c), July 22, 2014, 128 Stat. 1675; Pub. L. 114–95, title IX, §9215(mmm)(3), Dec. 10, 2015, 129 Stat. 2188.)

REFERENCES IN TEXT

The amendments to this section made by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Act of 1978, referred to in subsec. (a), mean the amendments made by Pub. L. 95–602. See 1978 Amendments note below.

The Americans with Disabilities Act of 1990, referred to in subsec. (d), is Pub. L. 101–336, July 26, 1990, 104 Stat. 327. Title I of the Act is classified generally to subchapter I (§12111 et seq.) of chapter 126 of Title 42, The Public Health and Welfare. Section 510 of the Act was renumbered section 511 by Pub. L. 110–325, §6(a)(2), Sept. 25, 2008, 122 Stat. 3558. For complete classification of this Act to the Code, see Short Title note set out under section 12101 of Title 42 and Tables.

AMENDMENTS

2015—Subsec. (b)(2)(B). Pub. L. 114–95 made technical amendment to reference in original act which appears in text as reference to section 7801 of title 20.

2014—Subsec. (b)(2)(B). Pub. L. 113–128 substituted “career and technical education” for “vocational education”.

2002—Subsec. (b)(2)(B). Pub. L. 107–110 substituted “section 7801 of title 20” for “section 8801 of title 20”.

1998—Subsec. (a). Pub. L. 105–220 substituted “section 705(20)” for “section 706(8)”.

1994—Subsec. (b)(2)(B). Pub. L. 103–382 substituted “section 8801 of title 20” for “section 2891(12) of title 20”.

1992—Subsec. (a). Pub. L. 102–569, §102(p)(32), substituted “a disability” for “handicaps” and “disability” for “handicap” in first sentence.

Subsec. (d). Pub. L. 102–569, §506, added subsec. (d).

1988—Subsec. (a). Pub. L. 100–630, §206(d)(1), substituted “her or his handicap” for “his handicap”.

Pub. L. 100–259, §4(1), designated existing provisions as subsec. (a).

Subsec. (b). Pub. L. 100–259, §4(2), added subsec. (b).

Subsec. (b)(2)(B). Pub. L. 100–630, §206(d)(2), substituted “section 2891(12) of title 20” for “section 2854(a)(10) of title 20”.

Subsec. (c). Pub. L. 100–259, §4(2), added subsec. (c).

1986—Pub. L. 99–506 substituted “individual with handicaps” for “handicapped individual” and “section 706(8) of this title” for “section 706(7) of this title”.

1978—Pub. L. 95–602 substituted “section 706(7) of this title” for “section 706(6) of this title” and inserted provision prohibiting discrimination under any program or activity conducted by any Executive agency or by the United States Postal Service and requiring the heads of these agencies to promulgate regulations prohibiting discrimination.

EFFECTIVE DATE OF 2015 AMENDMENT

Amendment by Pub. L. 114–95 effective Dec. 10, 2015, except with respect to certain noncompetitive pro-

<sup>1</sup>See References in Text note below.

grams and competitive programs, see section 5 of Pub. L. 114-95, set out as a note under section 6301 of Title 20, Education.

#### EFFECTIVE DATE OF 2002 AMENDMENT

Amendment by Pub. L. 107-110 effective Jan. 8, 2002, except with respect to certain noncompetitive programs and competitive programs, see section 5 of Pub. L. 107-110, set out as an Effective Date note under section 6301 of Title 20, Education.

#### EXCLUSION FROM COVERAGE

Amendment by Pub. L. 100-259 not to be construed to extend application of this chapter to ultimate beneficiaries of Federal financial assistance excluded from coverage before Mar. 22, 1988, see section 7 of Pub. L. 100-259, set out as a Construction note under section 1687 of Title 20, Education.

#### ABORTION NEUTRALITY

Amendment by Pub. L. 100-259 not to be construed to force or require any individual or hospital or any other institution, program, or activity receiving Federal funds to perform or pay for an abortion, see section 8 of Pub. L. 100-259, set out as a note under section 1688 of Title 20, Education.

#### CONSTRUCTION OF PROHIBITION AGAINST DISCRIMINATION UNDER FEDERAL GRANTS

Rights or protections of this section not affected by any provision of Pub. L. 98-457, see section 127 of Pub. L. 98-457, set out as a note under section 5101 of Title 42, The Public Health and Welfare.

#### COORDINATION OF IMPLEMENTATION AND ENFORCEMENT OF PROVISIONS

For provisions relating to the coordination of implementation and enforcement of the provisions of this section by the Attorney General, see section 1-201 of Ex. Ord. No. 12250, Nov. 2, 1980, 45 F.R. 72995, set out as a note under section 2000d-1 of Title 42, The Public Health and Welfare.

#### EXECUTIVE ORDER No. 11914

Ex. Ord. No. 11914, Apr. 28, 1976, 41 F.R. 17871, which related to nondiscrimination in federally assisted programs, was revoked by Ex. Ord. No. 12250, Nov. 2, 1980, 45 F.R. 72995, set out as a note under section 2000d-1 of Title 42, The Public Health and Welfare.

#### § 794a. Remedies and attorney fees

(a)(1) The remedies, procedures, and rights set forth in section 717 of the Civil Rights Act of 1964 (42 U.S.C. 2000e-16), including the application of sections 706(f) through 706(k) (42 U.S.C. 2000e-5(f) through (k)) (and the application of section 706(e)(3) (42 U.S.C. 2000e-5(e)(3)) to claims of discrimination in compensation), shall be available, with respect to any complaint under section 791 of this title, to any employee or applicant for employment aggrieved by the final disposition of such complaint, or by the failure to take final action on such complaint. In fashioning an equitable or affirmative action remedy under such section, a court may take into account the reasonableness of the cost of any necessary work place accommodation, and the availability of alternatives therefor or other appropriate relief in order to achieve an equitable and appropriate remedy.

(2) The remedies, procedures, and rights set forth in title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) (and in subsection (e)(3) of section 706 of such Act (42 U.S.C. 2000e-5), applied to claims of discrimination in compensa-

tion) shall be available to any person aggrieved by any act or failure to act by any recipient of Federal assistance or Federal provider of such assistance under section 794 of this title.

(b) In any action or proceeding to enforce or charge a violation of a provision of this subchapter, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs.

(Pub. L. 93-112, title V, §505, as added Pub. L. 95-602, title I, §120(a), Nov. 6, 1978, 92 Stat. 2982; amended Pub. L. 111-2, §5(c)(1), Jan. 29, 2009, 123 Stat. 6.)

#### REFERENCES IN TEXT

The Civil Rights Act of 1964, referred to in subsec. (a)(2), is Pub. L. 88-352, July 2, 1964, 78 Stat. 241. Title VI of the Civil Rights Act of 1964 is classified generally to subchapter V (§2000d et seq.) of chapter 21 of Title 42, The Public Health and Welfare. For complete classification of this Act to the Code, see Short Title note set out under section 2000a of Title 42 and Tables.

#### AMENDMENTS

2009—Subsec. (a)(1). Pub. L. 111-2, §5(c)(1)(A), inserted “(and the application of section 706(e)(3) (42 U.S.C. 2000e-5(e)(3)) to claims of discrimination in compensation)” after “(42 U.S.C. 2000e-5(f) through (k))”.

Subsec. (a)(2). Pub. L. 111-2, §5(c)(1)(B), inserted “(42 U.S.C. 2000d et seq.) (and in subsection (e)(3) of section 706 of such Act (42 U.S.C. 2000e-5), applied to claims of discrimination in compensation)” after “1964”.

#### EFFECTIVE DATE OF 2009 AMENDMENT

Amendment by Pub. L. 111-2 effective as if enacted May 28, 2007, and applicable to certain claims of discrimination in compensation pending on or after that date, see section 6 of Pub. L. 111-2, set out as a note under section 2000e-5 of Title 42, The Public Health and Welfare.

#### § 794b. Removal of architectural, transportation, or communication barriers; technical and financial assistance; compensation of experts or consultants; authorization of appropriations

(a) The Secretary may provide directly or by contract with State vocational rehabilitation agencies or experts or consultants or groups thereof, technical assistance—

(1) to persons operating community rehabilitation programs; and

(2) with the concurrence of the Access Board established by section 792 of this title, to any public or nonprofit agency, institution, or organization;

for the purpose of assisting such persons or entities in removing architectural, transportation, or communication barriers. Any concurrence of the Access Board under paragraph (2) shall reflect its consideration of cost studies carried out by States.

(b) Any such experts or consultants, while serving pursuant to such contracts, shall be entitled to receive compensation at rates fixed by the Secretary, but not exceeding the daily equivalent of the rate of pay for level 4 of the Senior Executive Service Schedule under section 5382 of title 5, including travel time, and while so serving away from their homes or regular places of business, they may be allowed trav-

**(b) Authority under agreement**

The Administrator shall be authorized to—

(1) accept from a refiner a consolidated application for all permits required from the Environmental Protection Agency, to the extent consistent with other applicable law;

(2) enter into memoranda of agreement with other Federal agencies to coordinate consideration of refinery applications and permits among Federal agencies; and

(3) enter into memoranda of agreement with a State, under which Federal and State review of refinery permit applications will be coordinated and concurrently considered, to the extent practicable.

**(c) State assistance**

The Administrator is authorized to provide financial assistance to State governments to facilitate the hiring of additional personnel with expertise in fields relevant to consideration of refinery permits.

**(d) Other assistance**

The Administrator is authorized to provide technical, legal, or other assistance to State governments to facilitate their review of applications to build new refineries.

(Pub. L. 109–58, title III, §392, Aug. 8, 2005, 119 Stat. 749.)

SUBCHAPTER IV—COAL

PART A—CLEAN COAL POWER INITIATIVE

**§ 15961. Authorization of appropriations**

**(a) Clean coal power initiative**

There are authorized to be appropriated to the Secretary to carry out the activities authorized by this part \$200,000,000 for each of fiscal years 2006 through 2014, to remain available until expended.

**(b) Report**

The Secretary shall submit to Congress the report required by this subsection not later than March 31, 2007. The report shall include, with respect to subsection (a), a plan containing—

(1) a detailed assessment of whether the aggregate funding levels provided under subsection (a) are the appropriate funding levels for that program;

(2) a detailed description of how proposals will be solicited and evaluated, including a list of all activities expected to be undertaken;

(3) a detailed list of technical milestones for each coal and related technology that will be pursued; and

(4) a detailed description of how the program will avoid problems enumerated in Government Accountability Office reports on the Clean Coal Technology Program, including problems that have resulted in unspent funds and projects that failed either financially or scientifically.

(Pub. L. 109–58, title IV, §401, Aug. 8, 2005, 119 Stat. 749.)

**§ 15962. Project criteria**

**(a) In general**

To be eligible to receive assistance under this part, a project shall advance efficiency, environ-

mental performance, and cost competitiveness well beyond the level of technologies that are in commercial service or have been demonstrated on a scale that the Secretary determines is sufficient to demonstrate that commercial service is viable as of August 8, 2005.

**(b) Technical criteria for clean coal power initiative**

**(1) Gasification projects**

**(A) In general**

In allocating the funds made available under section 15961(a) of this title, the Secretary shall ensure that at least 70 percent of the funds are used only to fund projects on coal-based gasification technologies, including—

- (i) gasification combined cycle;
- (ii) gasification fuel cells and turbine combined cycle;
- (iii) gasification coproduction;
- (iv) hybrid gasification and combustion; and
- (v) other advanced coal based technologies capable of producing a concentrated stream of carbon dioxide.

**(B) Technical milestones**

**(i) Periodic determination**

**(I) In general**

The Secretary shall periodically set technical milestones specifying the emission and thermal efficiency levels that coal gasification projects under this part shall be designed, and reasonably expected, to achieve.

**(II) Prescriptive milestones**

The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

**(ii) 2020 goals**

The Secretary shall establish the periodic milestones so as to achieve by the year 2020 coal gasification projects able—

- (I)(aa) to remove at least 99 percent of sulfur dioxide; or
- (bb) to emit not more than 0.04 pound SO<sub>2</sub> per million Btu, based on a 30-day average;
- (II) to emit not more than .05 lbs of NO<sub>x</sub> per million Btu;
- (III) to achieve at least 95 percent reductions in mercury emissions; and
- (IV) to achieve a thermal efficiency of at least—
  - (aa) 50 percent for coal of more than 9,000 Btu;
  - (bb) 48 percent for coal of 7,000 to 9,000 Btu; and
  - (cc) 46 percent for coal of less than 7,000 Btu.

**(2) Other projects**

**(A) Allocation of funds**

The Secretary shall ensure that up to 30 percent of the funds made available under section 15961(a) of this title are used to fund projects other than those described in paragraph (1).

**(B) Technical milestones****(i) Periodic determination****(I) In general**

The Secretary shall periodically establish technical milestones specifying the emission and thermal efficiency levels that projects funded under this paragraph shall be designed, and reasonably expected, to achieve.

**(II) Prescriptive milestones**

The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

**(ii) 2020 goals**

The Secretary shall set the periodic milestones so as to achieve by the year 2020 projects able—

(I) to remove at least 97 percent of sulfur dioxide;

(II) to emit no more than .08 lbs of NO<sub>x</sub> per million Btu;

(III) to achieve at least 90 percent reductions in mercury emissions; and

(IV) to achieve a thermal efficiency of at least—

(aa) 43 percent for coal of more than 9,000 Btu;

(bb) 41 percent for coal of 7,000 to 9,000 Btu; and

(cc) 39 percent for coal of less than 7,000 Btu.

**(3) Consultation**

Before setting the technical milestones under paragraphs (1)(B) and (2)(B), the Secretary shall consult with—

(A) the Administrator of the Environmental Protection Agency; and

(B) interested entities, including—

(i) coal producers;

(ii) industries using coal;

(iii) organizations that promote coal or advanced coal technologies;

(iv) environmental organizations;

(v) organizations representing workers; and

(vi) organizations representing consumers.

**(4) Existing units**

In the case of projects at units in existence on August 8, 2005, in lieu of the thermal efficiency requirements described in paragraphs (1)(B)(ii)(IV) and (2)(B)(ii)(IV), the milestones shall be designed to achieve an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

(A) 7 percent for coal of more than 9,000 Btu;

(B) 6 percent for coal of 7,000 to 9,000 Btu; or

(C) 4 percent for coal of less than 7,000 Btu.

**(5) Administration****(A) Elevation of site**

In evaluating project proposals to achieve thermal efficiency levels established under paragraphs (1)(B)(i) and (2)(B)(i) and in de-

termining progress towards thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4), the Secretary shall take into account and make adjustments for the elevation of the site at which a project is proposed to be constructed.

**(B) Applicability of milestones**

In applying the thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4) to projects that separate and capture at least 50 percent of the potential emissions of carbon dioxide by a facility, the energy used for separation and capture of carbon dioxide shall not be counted in calculating the thermal efficiency.

**(C) Permitted uses**

In carrying out this section, the Secretary may give priority to projects that include, as part of the project—

(i) the separation or capture of carbon dioxide; or

(ii) the reduction of the demand for natural gas if deployed.

**(c) Financial criteria**

The Secretary shall not provide financial assistance under this part for a project unless the recipient documents to the satisfaction of the Secretary that—

(1) the recipient is financially responsible;

(2) the recipient will provide sufficient information to the Secretary to enable the Secretary to ensure that the funds are spent efficiently and effectively; and

(3) a market exists for the technology being demonstrated or applied, as evidenced by statements of interest in writing from potential purchasers of the technology.

**(d) Financial assistance**

The Secretary shall provide financial assistance to projects that, as determined by the Secretary—

(1) meet the requirements of subsections (a),

(b), and (c); and

(2) are likely—

(A) to achieve overall cost reductions in the use of coal to generate useful forms of energy or chemical feedstocks;

(B) to improve the competitiveness of coal among various forms of energy in order to maintain a diversity of fuel choices in the United States to meet electricity generation requirements; and

(C) to demonstrate methods and equipment that are applicable to 25 percent of the electricity generating facilities, using various types of coal, that use coal as the primary feedstock as of August 8, 2005.

**(e) Cost-sharing**

In carrying out this part, the Secretary shall require cost sharing in accordance with section 16352 of this title.

**(f) Scheduled completion of selected projects****(1) In general**

In selecting a project for financial assistance under this section, the Secretary shall establish a reasonable period of time during which

the owner or operator of the project shall complete the construction or demonstration phase of the project, as the Secretary determines to be appropriate.

**(2) Condition of financial assistance**

The Secretary shall require as a condition of receipt of any financial assistance under this part that the recipient of the assistance enter into an agreement with the Secretary not to request an extension of the time period established for the project by the Secretary under paragraph (1).

**(3) Extension of time period**

**(A) In general**

Subject to subparagraph (B), the Secretary may extend the time period established under paragraph (1) if the Secretary determines, in the sole discretion of the Secretary, that the owner or operator of the project cannot complete the construction or demonstration phase of the project within the time period due to circumstances beyond the control of the owner or operator.

**(B) Limitation**

The Secretary shall not extend a time period under subparagraph (A) by more than 4 years.

**(g) Fee title**

The Secretary may vest fee title or other property interests acquired under cost-share clean coal power initiative agreements under this part in any entity, including the United States.

**(h) Data protection**

For a period not exceeding 5 years after completion of the operations phase of a cooperative agreement, the Secretary may provide appropriate protections (including exemptions from subchapter II of chapter 5 of title 5) against the dissemination of information that—

(1) results from demonstration activities carried out under the clean coal power initiative program; and

(2) would be a trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from and first produced by a non-Federal party participating in a clean coal power initiative project.

**(i) Applicability**

No technology, or level of emission reduction, solely by reason of the use of the technology, or the achievement of the emission reduction, by 1 or more facilities receiving assistance under this Act, shall be considered to be—

(1) adequately demonstrated for purposes of section 7411 of this title;

(2) achievable for purposes of section 7479 of this title; or

(3) achievable in practice for purposes of section 7501 of this title.

(Pub. L. 109–58, title IV, §402, Aug. 8, 2005, 119 Stat. 750; Pub. L. 110–140, title VI, §653, Dec. 19, 2007, 121 Stat. 1695.)

REFERENCES IN TEXT

This Act, referred to in subsec. (i), is Pub. L. 109–58, Aug. 8, 2005, 119 Stat. 594, as amended, known as the En-

ergy Policy Act of 2005, which enacted this chapter and enacted, amended, and repealed numerous other sections and notes in the Code. For complete classification of this Act to the Code, see Short Title note set out under section 15801 of this title and Tables.

AMENDMENTS

2007—Subsec. (b)(1)(B)(ii)(I). Pub. L. 110–140 added subcl. (I) and struck out former subcl. (I) which read as follows: “to remove at least 99 percent of sulfur dioxide;”.

EFFECTIVE DATE OF 2007 AMENDMENT

Amendment by Pub. L. 110–140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

**§ 15963. Report**

Not later than 1 year after August 8, 2005, and once every 2 years thereafter through 2014, the Secretary, in consultation with other appropriate Federal agencies, shall submit to Congress a report describing—

(1) the technical milestones set forth in section 15962 of this title and how those milestones ensure progress toward meeting the requirements of subsections (b)(1)(B) and (b)(2) of section 15962 of this title; and

(2) the status of projects funded under this part.

(Pub. L. 109–58, title IV, §403, Aug. 8, 2005, 119 Stat. 753.)

**§ 15964. Clean coal centers of excellence**

**(a) In general**

As part of the clean coal power initiative, the Secretary shall award competitive, merit-based grants to institutions of higher education for the establishment of centers of excellence for energy systems of the future.

**(b) Basis for grants**

The Secretary shall award grants under this section to institutions of higher education that show the greatest potential for advancing new clean coal technologies.

(Pub. L. 109–58, title IV, §404, Aug. 8, 2005, 119 Stat. 753.)

**§ 15965. Time limit for award; extension**

If a Clean Coal Power Initiative project selected after March 11, 2009, for negotiation under this or any other Act in any fiscal year, is not awarded within 2 years from the date the application was selected, negotiations shall cease and the Federal funds committed to the application shall be retained by the Department for future coal-related research, development and demonstration projects, except that the time limit may be extended at the Secretary's discretion for matters outside the control of the applicant, or if the Secretary determines that extension of the time limit is in the public interest.

(Pub. L. 111–8, div. C, title III, Mar. 11, 2009, 123 Stat. 616.)

CODIFICATION

Section was enacted as part of the Energy and Water Development and Related Agencies Appropriations Act,



Subsec. (h). Pub. L. 95-190, §14(a)(5), redesignated subsec. (g), added by Pub. L. 95-95, §108(g), as (h). Former subsec. (h) redesignated (i).

Subsec. (i). Pub. L. 95-190, §14(a)(5), redesignated subsec. (h), added by Pub. L. 95-95, §108(g), as (i). Former subsec. (i) redesignated (j) and amended.

Subsec. (j). Pub. L. 95-190 §14(a)(5), (6), redesignated subsec. (i), added by Pub. L. 95-95, §108(g), as (j) and in subsec. (j) as so redesignated, substituted "will enable such source" for "at such source will enable it".

1974—Subsec. (a)(3). Pub. L. 93-319, §4(a), designated existing provisions as subpar. (A) and added subpar. (B).

Subsec. (c). Pub. L. 93-319, §4(b), designated existing provisions as par. (1) and existing pars. (1), (2), and (3) as subpars. (A), (B), and (C), respectively, of such redesignated par. (1), and added par. (2).

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95-95, see section 406(a) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF IMPLEMENTATION PLANS APPROVED AND IN EFFECT PRIOR TO AUG. 7, 1977

Nothing in the Clean Air Act Amendments of 1977 [Pub. L. 95-95] to affect any requirement of an approved implementation plan under this section or any other provision in effect under this chapter before Aug. 7, 1977, until modified or rescinded in accordance with this chapter as amended by the Clean Air Act Amendments of 1977, see section 406(c) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

SAVINGS PROVISION

Pub. L. 91-604, §16, Dec. 31, 1970, 84 Stat. 1713, provided that:

"(a)(1) Any implementation plan adopted by any State and submitted to the Secretary of Health, Education, and Welfare, or to the Administrator pursuant to the Clean Air Act [this chapter] prior to enactment of this Act [Dec. 31, 1970] may be approved under section 110 of the Clean Air Act [this section] (as amended by this Act) [Pub. L. 91-604] and shall remain in effect, unless the Administrator determines that such implementation plan, or any portion thereof, is not consistent with applicable requirements of the Clean Air Act [this chapter] (as amended by this Act) and will not provide for the attainment of national primary ambi-

ent air quality standards in the time required by such Act. If the Administrator so determines, he shall, within 90 days after promulgation of any national ambient air quality standards pursuant to section 109(a) of the Clean Air Act [section 7409(a) of this title], notify the State and specify in what respects changes are needed to meet the additional requirements of such Act, including requirements to implement national secondary ambient air quality standards. If such changes are not adopted by the State after public hearings and within six months after such notification, the Administrator shall promulgate such changes pursuant to section 110(c) of such Act [subsec. (c) of this section].

"(2) The amendments made by section 4(b) [amending sections 7403 and 7415 of this title] shall not be construed as repealing or modifying the powers of the Administrator with respect to any conference convened under section 108(d) of the Clean Air Act [section 7415 of this title] before the date of enactment of this Act [Dec. 31, 1970].

"(b) Regulations or standards issued under this title II of the Clean Air Act [subchapter II of this chapter] prior to the enactment of this Act [Dec. 31, 1970] shall continue in effect until revised by the Administrator consistent with the purposes of such Act [this chapter]."

FEDERAL ENERGY ADMINISTRATOR

"Federal Energy Administrator", for purposes of this chapter, to mean Administrator of Federal Energy Administration established by Pub. L. 93-275, May 7, 1974, 88 Stat. 97, which is classified to section 761 et seq. of Title 15, Commerce and Trade, but with the term to mean any officer of the United States designated as such by the President until Federal Energy Administrator takes office and after Federal Energy Administration ceases to exist, see section 798 of Title 15, Commerce and Trade.

Federal Energy Administration terminated and functions vested by law in Administrator thereof transferred to Secretary of Energy (unless otherwise specifically provided) by sections 7151(a) and 7293 of this title.

§ 7411. Standards of performance for new stationary sources

(a) Definitions

For purposes of this section:

(1) The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(2) The term "new source" means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

(3) The term "stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant. Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines.

(4) The term "modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emit-

ted by such source or which results in the emission of any air pollutant not previously emitted.

(5) The term “owner or operator” means any person who owns, leases, operates, controls, or supervises a stationary source.

(6) The term “existing source” means any stationary source other than a new source.

(7) The term “technological system of continuous emission reduction” means—

(A) a technological process for production or operation by any source which is inherently low-polluting or nonpolluting, or

(B) a technological system for continuous reduction of the pollution generated by a source before such pollution is emitted into the ambient air, including precombustion cleaning or treatment of fuels.

(8) A conversion to coal (A) by reason of an order under section 2(a) of the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C. 792(a)] or any amendment thereto, or any subsequent enactment which supercedes such Act [15 U.S.C. 791 et seq.], or (B) which qualifies under section 7413(d)(5)(A)(ii)<sup>1</sup> 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)<sup>1</sup> 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 submitted under this paragraph to take into consideration, among other factors, the remaining use-

<sup>1</sup>See References in Text note below.

ful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

**(e) Prohibited acts**

After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

**(f) New source standards of performance**

(1) For those categories of major stationary sources that the Administrator listed under subsection (b)(1)(A) 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

Pub. L. 101-549, title IV, §403(b), (c), Nov. 15, 1990, 104 Stat. 2631, provided that:

“(b) REVISED REGULATIONS.—Not later than three years after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the Administrator shall promulgate revised regulations for standards of performance for new fossil fuel fired electric utility units commencing construction after the date on which such regulations are proposed that, at a minimum, require any source subject to such revised standards to emit sulfur dioxide at a rate not greater than would have resulted from compliance by such source with the applicable standards of performance under this section [amending sections 7411 and 7479 of this title] prior to such revision.

“(c) APPLICABILITY.—The provisions of subsections (a) [amending this section] and (b) apply only so long as the provisions of section 403(e) of the Clean Air Act [42 U.S.C. 7651b(e)] remain in effect.”

#### TRANSFER OF FUNCTIONS

Enforcement functions of Administrator or other official in Environmental Protection Agency related to compliance with new source performance standards under this section with respect to pre-construction, construction, and initial operation of transportation system for Canadian and Alaskan natural gas transferred to Federal Inspector, Office of Federal Inspector for the Alaska Natural Gas Transportation System, until first anniversary of date of initial operation of Alaska Natural Gas Transportation System, see Reorg. Plan No. 1 of 1979, eff. July 1, 1979, §§102(a), 203(a), 44 F.R. 33663, 33666, 93 Stat. 1373, 1376, set out in the Appendix to Title 5, Government Organization and Employees. Office of Federal Inspector for the Alaska Natural Gas Transportation System abolished and functions and authority vested in Inspector transferred to Secretary of Energy by section 3012(b) of Pub. L. 102-486, set out as an Abolition of Office of Federal Inspector note under section 719e of Title 15, Commerce and Trade. Functions and authority vested in Secretary of Energy subsequently transferred to Federal Coordinator for Alaska Natural Gas Transportation Projects by section 720d(f) of Title 15.

#### PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95-95, see section 406(a) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

#### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

#### POWER SECTOR CARBON POLLUTION STANDARDS

Memorandum of President of the United States, June 25, 2013, 78 F.R. 39535, provided:

Memorandum for the Administrator of the Environmental Protection Agency

With every passing day, the urgency of addressing climate change intensifies. I made clear in my State of the Union address that my Administration is committed to reducing carbon pollution that causes climate change, preparing our communities for the consequences of climate change, and speeding the transition to more sustainable sources of energy.

The Environmental Protection Agency (EPA) has already undertaken such action with regard to carbon pollution from the transportation sector, issuing Clean Air Act standards limiting the greenhouse gas emissions of new cars and light trucks through 2025 and heavy duty trucks through 2018. The EPA standards were promulgated in conjunction with the Department of Transportation, which, at the same time, established fuel efficiency standards for cars and trucks as part of a harmonized national program. Both agencies engaged constructively with auto manufacturers, labor unions, States, and other stakeholders, and the resulting standards have received broad support. These standards will reduce the Nation's carbon pollution and dependence on oil, and also lead to greater innovation, economic growth, and cost savings for American families.

The United States now has the opportunity to address carbon pollution from the power sector, which produces nearly 40 percent of such pollution. As a country, we can continue our progress in reducing power plant pollution, thereby improving public health and protecting the environment, while supplying the reliable, affordable power needed for economic growth and advancing cleaner energy technologies, such as efficient natural gas, nuclear power, renewables such as wind and solar energy, and clean coal technology.

Investments in these technologies will also strengthen our economy, as the clean and efficient production and use of electricity will ensure that it remains reliable and affordable for American businesses and families.

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to reduce power plant carbon pollution, building on actions already underway in States and the power sector, I hereby direct the following:

**SECTION 1. Flexible Carbon Pollution Standards for Power Plants.** (a) Carbon Pollution Standards for Future Power Plants. On April 13, 2012, the EPA published a Notice of Proposed Rulemaking entitled "Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units," 77 Fed. Reg. 22392. In light of the information conveyed in more than two million comments on that proposal and ongoing developments in the industry, you have indicated EPA's intention to issue a new proposal. I therefore direct you to issue a new proposal by no later than September 20, 2013. I further direct you to issue a final rule in a timely fashion after considering all public comments, as appropriate.

(b) *Carbon Pollution Regulation for Modified, Reconstructed, and Existing Power Plants.* To ensure continued progress in reducing harmful carbon pollution, I direct you to use your authority under sections 111(b) and 111(d) of the Clean Air Act to issue standards, regulations, or guidelines, as appropriate, that address carbon pollution from modified, reconstructed, and existing power plants and build on State efforts to move toward a cleaner power sector. In addition, I request that you:

(i) issue proposed carbon pollution standards, regulations, or guidelines, as appropriate, for modified, reconstructed, and existing power plants by no later than June 1, 2014;

(ii) issue final standards, regulations, or guidelines, as appropriate, for modified, reconstructed, and existing power plants by no later than June 1, 2015; and

(iii) include in the guidelines addressing existing power plants a requirement that States submit to EPA the implementation plans required under section 111(d) of the Clean Air Act and its implementing regulations by no later than June 30, 2016.

(c) *Development of Standards, Regulations, or Guidelines for Power Plants.* In developing standards, regulations, or guidelines pursuant to subsection (b) of this section, and consistent with Executive Orders 12866 of September 30, 1993, as amended, and 13563 of January 18, 2011, you shall ensure, to the greatest extent possible, that you:

(i) launch this effort through direct engagement with States, as they will play a central role in establishing and implementing standards for existing power plants, and, at the same time, with leaders in the power sector, labor leaders, non-governmental organizations, other experts, tribal officials, other stakeholders, and members of the public, on issues informing the design of the program;

(ii) consistent with achieving regulatory objectives and taking into account other relevant environmental regulations and policies that affect the power sector, tailor regulations and guidelines to reduce costs;

(iii) develop approaches that allow the use of market-based instruments, performance standards, and other regulatory flexibilities;

(iv) ensure that the standards enable continued reliance on a range of energy sources and technologies;

(v) ensure that the standards are developed and implemented in a manner consistent with the continued provision of reliable and affordable electric power for consumers and businesses; and

(vi) work with the Department of Energy and other Federal and State agencies to promote the reliable and affordable provision of electric power through the continued development and deployment of cleaner technologies and by increasing energy efficiency, including through stronger appliance efficiency standards and other measures.

**SEC. 2. General Provisions.** (a) This memorandum shall be implemented consistent with applicable law, including international trade obligations, and subject to the availability of appropriations.

(b) Nothing in this memorandum shall be construed to impair or otherwise affect:

(i) the authority granted by law to a department, agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(c) This memorandum is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(d) You are hereby authorized and directed to publish this memorandum in the Federal Register.

BARACK OBAMA.

## § 7412. Hazardous air pollutants

### (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.

California pilot test program or to specify as applicable the models, lines, or types of, or marketing or price practices, policies, or strategies for, vehicles subject to this part. Nothing in this part shall be construed to give the Administrator authority to mandate marketing or pricing practices, policies, or strategies for fuels.

**(c) Tank and fuel system safety**

The Secretary of Transportation shall, in accordance with chapter 301 of title 49, promulgate applicable regulations regarding the safety and use of fuel storage cylinders and fuel systems, including appropriate testing and retesting, in conversions of motor vehicles.

**(d) Consultation with Department of Energy and Department of Transportation**

The Administrator shall coordinate with the Secretaries of the Department of Energy and the Department of Transportation in carrying out the Administrator's duties under this part.

(July 14, 1955, ch. 360, title II, § 250, as added Pub. L. 101-549, title II, § 229(a), Nov. 15, 1990, 104 Stat. 2528.)

CODIFICATION

In subsec. (c), "chapter 301 of title 49" substituted for "the National Motor Vehicle Traffic Safety Act of 1966 [15 U.S.C. 1381 et seq.]", meaning "the National Traffic and Motor Vehicle Safety Act of 1966 [15 U.S.C. 1381 et seq.]", on authority of Pub. L. 103-272, § 6(b), July 5, 1994, 108 Stat. 1378, the first section of which enacted subtitles II, III, and V to X of Title 49, Transportation.

SUBCHAPTER III—GENERAL PROVISIONS

**§ 7601. Administration**

**(a) Regulations; delegation of powers and duties; regional officers and employees**

(1) The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter. The Administrator may delegate to any officer or employee of the Environmental Protection Agency such of his powers and duties under this chapter, except the making of regulations subject to section 7607(d) of this title, as he may deem necessary or expedient.

(2) Not later than one year after August 7, 1977, the Administrator shall promulgate regulations establishing general applicable procedures and policies for regional officers and employees (including the Regional Administrator) to follow in carrying out a delegation under paragraph (1), if any. Such regulations shall be designed—

(A) to assure fairness and uniformity in the criteria, procedures, and policies applied by the various regions in implementing and enforcing the chapter;

(B) to assure at least an adequate quality audit of each State's performance and adherence to the requirements of this chapter in implementing and enforcing the chapter, particularly in the review of new sources and in enforcement of the chapter; and

(C) to provide a mechanism for identifying and standardizing inconsistent or varying criteria, procedures, and policies being employed by such officers and employees in implementing and enforcing the chapter.

**(b) Detail of Environmental Protection Agency personnel to air pollution control agencies**

Upon the request of an air pollution control agency, personnel of the Environmental Protection Agency may be detailed to such agency for the purpose of carrying out the provisions of this chapter.

**(c) Payments under grants; installments; advances or reimbursements**

Payments under grants made under this chapter may be made in installments, and in advance or by way of reimbursement, as may be determined by the Administrator.

**(d) Tribal authority**

(1) Subject to the provisions of paragraph (2), the Administrator—

(A) is authorized to treat Indian tribes as States under this chapter, except for purposes of the requirement that makes available for application by each State no less than one-half of 1 percent of annual appropriations under section 7405 of this title; and

(B) may provide any such Indian tribe grant and contract assistance to carry out functions provided by this chapter.

(2) The Administrator shall promulgate regulations within 18 months after November 15, 1990, specifying those provisions of this chapter for which it is appropriate to treat Indian tribes as States. Such treatment shall be authorized only if—

(A) the Indian tribe has a governing body carrying out substantial governmental duties and powers;

(B) the functions to be exercised by the Indian tribe pertain to the management and protection of air resources within the exterior boundaries of the reservation or other areas within the tribe's jurisdiction; and

(C) the Indian tribe is reasonably expected to be capable, in the judgment of the Administrator, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of this chapter and all applicable regulations.

(3) The Administrator may promulgate regulations which establish the elements of tribal implementation plans and procedures for approval or disapproval of tribal implementation plans and portions thereof.

(4) In any case in which the Administrator determines that the treatment of Indian tribes as identical to States is inappropriate or administratively infeasible, the Administrator may provide, by regulation, other means by which the Administrator will directly administer such provisions so as to achieve the appropriate purpose.

(5) Until such time as the Administrator promulgates regulations pursuant to this subsection, the Administrator may continue to provide financial assistance to eligible Indian tribes under section 7405 of this title.

(July 14, 1955, ch. 360, title III, § 301, formerly § 8, as added Pub. L. 88-206, § 1, Dec. 17, 1963, 77 Stat. 400, renumbered Pub. L. 89-272, title I, § 101(4), Oct. 20, 1965, 79 Stat. 992; amended Pub. L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 504; Pub. L. 91-604, §§ 3(b)(2), 15(c)(2), Dec. 31, 1970, 84 Stat. 1677, 1713;



Pub. L. 95-95, title III, §305(e), Aug. 7, 1977, 91 Stat. 776; Pub. L. 101-549, title I, §§107(d), 108(i), Nov. 15, 1990, 104 Stat. 2464, 2467.)

#### CODIFICATION

Section was formerly classified to section 1857g of this title.

#### AMENDMENTS

1990—Subsec. (a)(1). Pub. L. 101-549, §108(i), inserted “subject to section 7607(d) of this title” after “regulations”.

Subsec. (d). Pub. L. 101-549, §107(d), added subsec. (d).  
1977—Subsec. (a). Pub. L. 95-95 designated existing provisions as par. (1) and added par. (2).

1970—Subsec. (a). Pub. L. 91-604, §15(c)(2), substituted “Administrator” for “Secretary” and “Environmental Protection Agency” for “Department of Health, Education, and Welfare”.

Subsec. (b). Pub. L. 91-604, §3(b)(2), substituted “Environmental Protection Agency” for “Public Health Service” and struck out provisions covering the payment of salaries and allowances.

Subsec. (c). Pub. L. 91-604, §15(c)(2), substituted “Administrator” for “Secretary”.

1967—Pub. L. 90-148 reenacted section without change.

#### EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

#### MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

#### DISADVANTAGED BUSINESS CONCERNS; USE OF QUOTAS PROHIBITED

Pub. L. 101-549, title X, Nov. 15, 1990, 104 Stat. 2708, provided that:

“SEC. 1001. DISADVANTAGED BUSINESS CONCERNS.

“(a) IN GENERAL.—In providing for any research relating to the requirements of the amendments made by the Clean Air Act Amendments of 1990 [Pub. L. 101-549, see Tables for classification] which uses funds of the Environmental Protection Agency, the Administrator of the Environmental Protection Agency shall, to the extent practicable, require that not less than 10 percent of total Federal funding for such research will be made available to disadvantaged business concerns.

“(b) DEFINITION.—

“(1)(A) For purposes of subsection (a), the term ‘disadvantaged business concern’ means a concern—

“(i) which is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of a publicly traded company, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

“(ii) the management and daily business operations of which are controlled by such individuals.

“(B)(i) A for-profit business concern is presumed to be a disadvantaged business concern for purposes of subsection (a) if it is at least 51 percent owned by, or

in the case of a concern which is a publicly traded company at least 51 percent of the stock of the company is owned by, one or more individuals who are members of the following groups:

“(I) Black Americans.

“(II) Hispanic Americans.

“(III) Native Americans.

“(IV) Asian Americans.

“(V) Women.

“(VI) Disabled Americans.

“(ii) The presumption established by clause (i) may be rebutted with respect to a particular business concern if it is reasonably established that the individual or individuals referred to in that clause with respect to that business concern are not experiencing impediments to establishing or developing such concern as a result of the individual’s identification as a member of a group specified in that clause.

“(C) The following institutions are presumed to be disadvantaged business concerns for purposes of subsection (a):

“(i) Historically black colleges and universities, and colleges and universities having a student body in which 40 percent of the students are Hispanic.

“(ii) Minority institutions (as that term is defined by the Secretary of Education pursuant to the General Education Provision Act (20 U.S.C. 1221 et seq.)).

“(iii) Private and voluntary organizations controlled by individuals who are socially and economically disadvantaged.

“(D) A joint venture may be considered to be a disadvantaged business concern under subsection (a), notwithstanding the size of such joint venture, if—

“(i) a party to the joint venture is a disadvantaged business concern; and

“(ii) that party owns at least 51 percent of the joint venture.

A person who is not an economically disadvantaged individual or a disadvantaged business concern, as a party to a joint venture, may not be a party to more than 2 awarded contracts in a fiscal year solely by reason of this subparagraph.

“(E) Nothing in this paragraph shall prohibit any member of a racial or ethnic group that is not listed in subparagraph (B)(i) from establishing that they have been impeded in establishing or developing a business concern as a result of racial or ethnic discrimination.

“SEC. 1002. USE OF QUOTAS PROHIBITED.—Nothing in this title shall permit or require the use of quotas or a requirement that has the effect of a quota in determining eligibility under section 1001.”

#### § 7602. Definitions

When used in this chapter—

(a) The term “Administrator” means the Administrator of the Environmental Protection Agency.

(b) The term “air pollution control agency” means any of the following:

(1) A single State agency designated by the Governor of that State as the official State air pollution control agency for purposes of this chapter.

(2) An agency established by two or more States and having substantial powers or duties pertaining to the prevention and control of air pollution.

(3) A city, county, or other local government health authority, or, in the case of any city, county, or other local government in which there is an agency other than the health authority charged with responsibility for enforcing ordinances or laws relating to the prevention and control of air pollution, such other agency.

emption 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**

**(a) Administrative subpoenas; 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)<sup>1</sup> or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the<sup>2</sup> 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),<sup>3</sup> the Administrator may issue subpoenas 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-

<sup>1</sup> See References in Text note below.

<sup>2</sup> So in original. Probably should be "this".

<sup>3</sup> 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 subpoena served upon any person under this subparagraph,<sup>4</sup> 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,<sup>3</sup> 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)<sup>1</sup> 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 pub-

<sup>4</sup> So in original. Probably should be "subsection,".

lishes 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<sup>5</sup> the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

#### (d) Rulemaking

(1) This subsection applies to—

(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F) of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV–A 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.

<sup>5</sup>So in original. The word “to” probably should not appear.

(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<sup>6</sup> 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.

<sup>6</sup>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).

Subsec. (h). Pub. L. 101-549, §108(p), added subsec. (h).

1977—Subsec. (b)(1). Pub. L. 95-190 in text relating to filing of petitions for review in the United States Court of Appeals for the District of Columbia inserted provision respecting requirements under sections 7411 and 7412 of this title, and substituted provisions authorizing review of any rule issued under section 7413, 7419, or 7420 of this title, for provisions authorizing review of any rule or order issued under section 7420 of this title, relating to noncompliance penalties, and in text relating to filing of petitions for review in the United States Court of Appeals for the appropriate circuit inserted provision respecting review under section 7411(j), 7412(c), 7413(d), or 7419 of this title, provision authorizing review under section 1857c-10(c)(2)(A), (B), or (C) to the period prior to Aug. 7, 1977, and provisions authorizing review of denials or disapprovals by the Administrator under subchapter I of this chapter.

Pub. L. 95-95, §305(c), (h), inserted rules or orders issued under section 7420 of this title (relating to noncompliance penalties) and any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter to the enumeration of actions of the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the District of Columbia, added the approval or promulgation by the Administrator of orders under section 7420 of this title, or any other final action of the Administrator under this chapter which is locally or regionally applicable to the enumeration of actions by the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the appropriate circuit, inserted provision that petitions otherwise capable of being filed in the Court of Appeals for the appropriate circuit may be filed only in the Court of Appeals for the District of Columbia if the action is based on a determination of nationwide scope, and increased from 30 days to 60 days the period during which the petition must be filed.

Subsec. (d). Pub. L. 95-95, §305(a), added subsec. (d).

Subsec. (e). Pub. L. 95-95, §303(d), added subsec. (e).

Subsec. (f). Pub. L. 95-95, §305(f), added subsec. (f).

Subsec. (g). Pub. L. 95-95, §305(g), added subsec. (g).

1974—Subsec. (b)(1). Pub. L. 93-319 inserted reference to the Administrator’s action under section 1857c-10(c)(2)(A), (B), or (C) of this title or under regulations thereunder and substituted reference to the filing of a petition within 30 days from the date of promulgation, approval, or action for reference to the filing of a petition within 30 days from the date of promulgation or approval.

1971—Subsec. (a)(1). Pub. L. 92-157 substituted reference to section “7545(c)(3)” for “7545(c)(4)” of this title.

## EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95-95, set out as a note under section 7401 of this title.

## TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

## PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other

officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95-95, see section 406(a) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

**MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS**

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

**§ 7608. Mandatory licensing**

Whenever the Attorney General determines, upon application of the Administrator—

(1) that—

(A) in the implementation of the requirements of section 7411, 7412, or 7521 of this title, a right under any United States letters patent, which is being used or intended for public or commercial use and not otherwise reasonably available, is necessary to enable any person required to comply with such limitation to so comply, and

(B) there are no reasonable alternative methods to accomplish such purpose, and

(2) that the unavailability of such right may result in a substantial lessening of competition or tendency to create a monopoly in any line of commerce in any section of the country,

the Attorney General may so certify to a district court of the United States, which may issue an order requiring the person who owns such patent to license it on such reasonable terms and conditions as the court, after hearing, may determine. Such certification may be made to the district court for the district in which the person owning the patent resides, does business, or is found.

(July 14, 1955, ch. 360, title III, §308, as added Pub. L. 91-604, §12(a), Dec. 31, 1970, 84 Stat. 1708.)

**CODIFICATION**

Section was formerly classified to section 1857h-6 of this title.

**PRIOR PROVISIONS**

A prior section 308 of act July 14, 1955, was renumbered section 315 by Pub. L. 91-604 and is classified to section 7615 of this title.

**MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS**

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect

immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

**§ 7609. Policy review**

**(a) Environmental impact**

The Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this chapter or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 4332(2)(C) of this title applies, and (3) proposed regulations published by any department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

**(b) Unsatisfactory legislation, action, or regulation**

In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determination and the matter shall be referred to the Council on Environmental Quality.

(July 14, 1955, ch. 360, title III, §309, as added Pub. L. 91-604, §12(a), Dec. 31, 1970, 84 Stat. 1709.)

**CODIFICATION**

Section was formerly classified to section 1857h-7 of this title.

**PRIOR PROVISIONS**

A prior section 309 of act July 14, 1955, ch. 360, title III, formerly §13, as added Dec. 17, 1963, Pub. L. 88-206, §1, 77 Stat. 401; renumbered §306, Oct. 20, 1965, Pub. L. 89-272, title I, §101(4), 79 Stat. 992; renumbered §309, Nov. 21, 1967, Pub. L. 90-148, §2, 81 Stat. 506; renumbered §316, Dec. 31, 1970, Pub. L. 91-604, §12(a), 84 Stat. 1705, related to appropriations and was classified to section 1857f of this title, prior to repeal by section 306 of Pub. L. 95-95. See section 7626 of this title.

**MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS**

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95-95 [this chapter], see section 406(b) of Pub. L. 95-95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

**§ 7610. Other authority**

**(a) Authority and responsibilities under other laws not affected**

Except as provided in subsection (b) of this section, this chapter shall not be construed as

(§7401 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

This Act, referred to in subsec. (b)(2), is Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 2776, known as the Energy Policy Act of 1992. For complete classification of this Act to the Code, see Short Title note set out under section 13201 of this title and Tables.

**§ 13573. Generation projects**

**(a) Eligible projects**

Projects supported under section 13572(a)(1) of this title may include—

- (1) equipment or processes previously supported by a Department of Energy program;
- (2) advanced combustion equipment and processes that the Secretary determines will be cost-effective and could substantially contribute to meeting environmental or energy needs, including gasification, gasification fuel cells, gasification coproduction, oxidation combustion techniques, ultra-supercritical boilers, and chemical looping; and
- (3) hybrid gasification/combustion systems, including systems integrating fuel cells with gasification or combustion units.

**(b) Criteria**

The Secretary shall establish criteria for the selection of generation projects under section 13572(a)(1) of this title. The Secretary may modify the criteria as appropriate to reflect improvements in equipment, except that the criteria shall not be modified to be less stringent. The selection criteria shall include—

- (1) prioritization of projects whose installation is likely to result in significant air quality improvements in nonattainment air quality areas;
- (2) prioritization of projects whose installation is likely to result in lower emission rates of pollution;
- (3) prioritization of projects that result in the repowering or replacement of older, less efficient units;
- (4) documented broad interest in the procurement of the equipment and utilization of the processes used in the projects by owners or operators of facilities for electricity generation;
- (5) equipment and processes beginning in 2006 through 2011 that are projected to achieve a thermal efficiency of—

- (A) 40 percent for coal of more than 9,000 Btu per pound based on higher heating values;
- (B) 38 percent for coal of 7,000 to 9,000 Btu per pound passed on higher heating values; and
- (C) 36 percent for coal of less than 7,000 Btu per pound based on higher heating values;

except that energy used for coproduction or cogeneration shall not be counted in calculating the thermal efficiency under this paragraph; and

- (6) equipment and processes beginning in 2012 and 2013 that are projected to achieve a thermal efficiency of—

- (A) 45 percent for coal of more than 9,000 Btu per pound based on higher heating values;

- (B) 44 percent for coal of 7,000 to 9,000 Btu per pound passed on higher heating values; and

- (C) 40 percent for coal of less than 7,000 Btu per pound based on higher heating values;

except that energy used for coproduction or cogeneration shall not be counted in calculating the thermal efficiency under this paragraph.

**(c) Program balance and priority**

In carrying out the program under section 13572(a)(1) of this title, the Secretary shall ensure, to the extent practicable, that—

- (1) between 25 percent and 75 percent of the projects supported are for the sole purpose of electrical generation; and
- (2) priority is given to projects that use electrical generation equipment and processes that have been developed and demonstrated and applied in actual production of electricity, but are not yet cost-competitive, and that achieve greater efficiency and environmental performance.

**(d) Authorization of appropriations**

There are authorized to be appropriated to the Secretary to carry out section 13572(a)(1) of this title—

- (1) \$250,000,000 for fiscal year 2007;
- (2) \$350,000,000 for fiscal year 2008;
- (3) \$400,000,000 for each of fiscal years 2009 through 2012; and
- (4) \$300,000,000 for fiscal year 2013.

**(e) Applicability**

No technology, or level of emission reduction, shall be treated as adequately demonstrated for purpose<sup>1</sup> of section 7411 of this title, achievable for purposes of section 7479 of this title, or achievable in practice for purposes of section 7501 of this title solely by reason of the use of such technology, or the achievement of such emission reduction, by one or more facilities receiving assistance under section 13572(a)(1) of this title.

(Pub. L. 102-486, title XXXI, §3103, as added Pub. L. 109-58, title IV, §421(a), Aug. 8, 2005, 119 Stat. 758.)

**§ 13574. Air quality enhancement program**

**(a) Eligible projects**

Projects supported under section 13572(a)(2) of this title shall—

- (1) utilize technologies that meet relevant Federal and State clean air requirements applicable to the unit or facility, including being adequately demonstrated for purposes of section 7411 of this title, achievable for purposes of section 7479 of this title, or achievable in practice for purposes of section 7501 of this title; or
- (2) utilize equipment or processes that exceed relevant Federal or State clean air requirements applicable to the unit or facilities included in the projects by achieving greater efficiency or environmental performance.

<sup>1</sup>So in original. Probably should be "purposes".



(§7401 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

This Act, referred to in subsec. (b)(2), is Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 2776, known as the Energy Policy Act of 1992. For complete classification of this Act to the Code, see Short Title note set out under section 13201 of this title and Tables.

**§ 13573. Generation projects**

**(a) Eligible projects**

Projects supported under section 13572(a)(1) of this title may include—

- (1) equipment or processes previously supported by a Department of Energy program;
- (2) advanced combustion equipment and processes that the Secretary determines will be cost-effective and could substantially contribute to meeting environmental or energy needs, including gasification, gasification fuel cells, gasification coproduction, oxidation combustion techniques, ultra-supercritical boilers, and chemical looping; and
- (3) hybrid gasification/combustion systems, including systems integrating fuel cells with gasification or combustion units.

**(b) Criteria**

The Secretary shall establish criteria for the selection of generation projects under section 13572(a)(1) of this title. The Secretary may modify the criteria as appropriate to reflect improvements in equipment, except that the criteria shall not be modified to be less stringent. The selection criteria shall include—

- (1) prioritization of projects whose installation is likely to result in significant air quality improvements in nonattainment air quality areas;
- (2) prioritization of projects whose installation is likely to result in lower emission rates of pollution;
- (3) prioritization of projects that result in the repowering or replacement of older, less efficient units;
- (4) documented broad interest in the procurement of the equipment and utilization of the processes used in the projects by owners or operators of facilities for electricity generation;
- (5) equipment and processes beginning in 2006 through 2011 that are projected to achieve a thermal efficiency of—

- (A) 40 percent for coal of more than 9,000 Btu per pound based on higher heating values;
- (B) 38 percent for coal of 7,000 to 9,000 Btu per pound passed on higher heating values; and
- (C) 36 percent for coal of less than 7,000 Btu per pound based on higher heating values;

except that energy used for coproduction or cogeneration shall not be counted in calculating the thermal efficiency under this paragraph; and

- (6) equipment and processes beginning in 2012 and 2013 that are projected to achieve a thermal efficiency of—

- (A) 45 percent for coal of more than 9,000 Btu per pound based on higher heating values;

- (B) 44 percent for coal of 7,000 to 9,000 Btu per pound passed on higher heating values; and

- (C) 40 percent for coal of less than 7,000 Btu per pound based on higher heating values;

except that energy used for coproduction or cogeneration shall not be counted in calculating the thermal efficiency under this paragraph.

**(c) Program balance and priority**

In carrying out the program under section 13572(a)(1) of this title, the Secretary shall ensure, to the extent practicable, that—

- (1) between 25 percent and 75 percent of the projects supported are for the sole purpose of electrical generation; and
- (2) priority is given to projects that use electrical generation equipment and processes that have been developed and demonstrated and applied in actual production of electricity, but are not yet cost-competitive, and that achieve greater efficiency and environmental performance.

**(d) Authorization of appropriations**

There are authorized to be appropriated to the Secretary to carry out section 13572(a)(1) of this title—

- (1) \$250,000,000 for fiscal year 2007;
- (2) \$350,000,000 for fiscal year 2008;
- (3) \$400,000,000 for each of fiscal years 2009 through 2012; and
- (4) \$300,000,000 for fiscal year 2013.

**(e) Applicability**

No technology, or level of emission reduction, shall be treated as adequately demonstrated for purpose<sup>1</sup> of section 7411 of this title, achievable for purposes of section 7479 of this title, or achievable in practice for purposes of section 7501 of this title solely by reason of the use of such technology, or the achievement of such emission reduction, by one or more facilities receiving assistance under section 13572(a)(1) of this title.

(Pub. L. 102-486, title XXXI, §3103, as added Pub. L. 109-58, title IV, §421(a), Aug. 8, 2005, 119 Stat. 758.)

**§ 13574. Air quality enhancement program**

**(a) Eligible projects**

Projects supported under section 13572(a)(2) of this title shall—

- (1) utilize technologies that meet relevant Federal and State clean air requirements applicable to the unit or facility, including being adequately demonstrated for purposes of section 7411 of this title, achievable for purposes of section 7479 of this title, or achievable in practice for purposes of section 7501 of this title; or
- (2) utilize equipment or processes that exceed relevant Federal or State clean air requirements applicable to the unit or facilities included in the projects by achieving greater efficiency or environmental performance.

<sup>1</sup>So in original. Probably should be "purposes".

**(b) Priority in project selection**

In making an award under section 13572(a)(2) of this title, the Secretary shall give priority to—

- (1) projects whose installation is likely to result in significant air quality improvements in nonattainment air quality areas or substantially reduce the emission level of criteria pollutants and mercury air emissions;
- (2) projects for pollution control that result in the mitigation or collection of more than 1 pollutant; and
- (3) projects designed to allow the use of the waste byproducts or other byproducts of the equipment.

**(c) Authorization of appropriations**

There are authorized to be appropriated to the Secretary to carry out section 13572(a)(2) of this title—

- (1) \$300,000,000 for fiscal year 2007;
- (2) \$100,000,000 for fiscal year 2008;
- (3) \$40,000,000 for fiscal year 2009;
- (4) \$30,000,000 for fiscal year 2010; and
- (5) \$30,000,000 for fiscal year 2011.

**(d) Applicability**

No technology, or level of emission reduction under subsection (a)(2) of this section shall be treated as adequately demonstrated for purpose of Section<sup>1</sup> 7411 of this title, achievable for purposes of section 7479 of this title, or achievable in practice for purposes of section 7501 of this title solely by reason of the use of such technology, or the achievement of such emission reduction, by one or more facilities receiving assistance under section 13572(a)(2) of this title.

(Pub. L. 102-486, title XXXI, §3104, as added Pub. L. 109-58, title IV, §421(a), Aug. 8, 2005, 119 Stat. 759.)

**CHAPTER 135—RESIDENCY AND SERVICE REQUIREMENTS IN FEDERALLY ASSISTED HOUSING****SUBCHAPTER I—STANDARDS AND OBLIGATIONS OF RESIDENCY IN FEDERALLY ASSISTED HOUSING**

- |        |  |
|--------|--|
| Sec.   |  |
| 13601. | Compliance by owners as condition of Federal assistance.           |
| 13602. | Compliance with criteria for occupancy as requirement for tenancy. |
| 13603. | Establishment of criteria for occupancy.                           |
| 13604. | Assisted applications.   |

**SUBCHAPTER II—AUTHORITY TO PROVIDE PREFERENCES FOR ELDERLY RESIDENTS AND UNITS FOR DISABLED RESIDENTS IN CERTAIN SECTION 8 ASSISTED HOUSING**

- |        |   |
|--------|---|
| 13611. | Authority.  |
| 13612. | Reservation of units for disabled families.                               |
| 13613. | Secondary preferences.  |
| 13614. | General availability of units.  |
| 13615. | Preference within groups.   |
| 13616. | Prohibition of evictions.   |
| 13617. | Treatment of covered section 8 housing not subject to elderly preference. |
| 13618. | Treatment of other federally assisted housing.                            |
| 13619. | “Covered section 8 housing” defined.                                      |

<sup>1</sup>So in original. Probably should be “purposes of section”.

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|--------|--------|
| Sec.   |        |
| 13620. | Study. |

**SUBCHAPTER III—SERVICE COORDINATORS FOR ELDERLY AND DISABLED RESIDENTS OF FEDERALLY ASSISTED HOUSING**

- |        |   |
|--------|---|
| 13631. | Requirement to provide service coordinators.  |
| 13632. | Grants for costs of providing service coordinators in certain federally assisted housing. |

**SUBCHAPTER IV—GENERAL PROVISIONS**

- |        |                |
|--------|----------------|
| 13641. | Definitions.   |
| 13642. | Applicability. |
| 13643. | Regulations.   |

**SUBCHAPTER V—SAFETY AND SECURITY IN PUBLIC AND ASSISTED HOUSING**

- |        |   |
|--------|---|
| 13661. | Screening of applicants for federally assisted housing.   |
| 13662. | Termination of tenancy and assistance for illegal drug users and alcohol abusers in federally assisted housing. |
| 13663. | Ineligibility of dangerous sex offenders for admission to public housing.                                       |
| 13664. | Definitions.  |

**SUBCHAPTER I—STANDARDS AND OBLIGATIONS OF RESIDENCY IN FEDERALLY ASSISTED HOUSING****§ 13601. Compliance by owners as condition of Federal assistance**

The Secretary of Housing and Urban Development shall require owners of federally assisted housing (as such term is defined in section 13641(2) of this title), as a condition of receiving housing assistance for such housing, to comply with the procedures and requirements established under this subchapter.

(Pub. L. 102-550, title VI, §641, Oct. 28, 1992, 106 Stat. 3820.)

**EFFECTIVE DATE**

Chapter applicable upon expiration of 6-month period beginning Oct. 28, 1992, except as otherwise provided, see section 13642 of this title.

**§ 13602. Compliance with criteria for occupancy as requirement for tenancy**

In selecting tenants for occupancy of units in federally assisted housing, an owner of such housing shall utilize the criteria for occupancy in federally assisted housing established by the Secretary, by regulation, under section 13603 of this title. If an owner determines that an applicant for occupancy in the housing does not meet such criteria, the owner may deny such applicant occupancy.

(Pub. L. 102-550, title VI, §642, Oct. 28, 1992, 106 Stat. 3821.)

**§ 13603. Establishment of criteria for occupancy****(a) Task force****(1) Establishment**

To assist the Secretary in establishing reasonable criteria for occupancy in federally assisted housing, the Secretary shall establish a task force to review all rules, policy statements, handbooks, technical assistance memoranda, and other relevant documents issued by the Department of Housing and Urban Development on the standards and obligations gov-

**XVI. Statutory Authority**

The statutory authority for this action is provided by sections 111, 301, 302, and 307(d)(1)(C) of the CAA as amended (42 U.S.C. 7411, 7601, 7602, 7607(d)(1)(C)). This action is also subject to section 307(d) of the CAA (42 U.S.C. 7607(d)).

**List of Subjects**

*40 CFR Part 60*

Environmental protection, Administrative practice and procedure, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

*40 CFR Part 70*

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

*40 CFR Part 71*

Environmental protection, Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements.

*40 CFR Part 98*

Environmental protection, Greenhouse gases and monitoring, Reporting and recordkeeping requirements.

Dated: August 3, 2015.

**Gina McCarthy,**  
*Administrator.*

For the reasons stated in the preamble, title 40, chapter I, parts 60, 70, 71, and 98 of the Code of the Federal Regulations are amended as follows:

**PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

■ 1. The authority citation for part 60 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

- 2. Section 60.17 is amended by:
  - a. Redesignating paragraphs (d) through (t) as paragraphs (e) through (u) and adding paragraph (d);
  - b. In newly redesignated paragraph (g), further redesignating paragraph (g)(15) as paragraph (g)(17) and adding paragraphs (g)(15) and (16);
  - c. In newly redesignated paragraph (h), revising paragraphs (h)(37), (42), (46), (138), (187), and (190); and
  - c. In newly redesignated paragraph (m), further redesignating paragraph (m)(1) as paragraph (m)(2) and adding paragraph (m)(1).

The revisions and additions read as follows:

**§ 60.17 Incorporations by reference.**

\* \* \* \* \*

(d) The following material is available for purchase from the American National Standards Institute (ANSI), 25 W. 43rd Street, 4th Floor, New York, NY 10036, Telephone (212) 642-4980, and is also available at the following Web site: <http://www.ansi.org>.

(1) ANSI No. C12.20-2010 American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes (Approved August 31, 2010), IBR approved for § 60.5535(d).

(2) [Reserved]

\* \* \* \* \*

(g) \* \* \*

(15) ASME PTC 22-2014, Gas Turbines: Performance Test Codes, (Issued December 31, 2014), IBR approved for § 60.5580.

(16) ASME PTC 46-1996, Performance Test Code on Overall Plant Performance, (Issued October 15, 1997), IBR approved for § 60.5580.

\* \* \* \* \*

(h) \* \* \*

(37) ASTM D388-99 (Reapproved 2004)<sup>e1</sup> Standard Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, 60.251, and 60.5580.

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(42) ASTM D396-98, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), 60.111a(b), and 60.5580.

\* \* \* \* \*

(46) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.41b 60.41c, and 60.5580.

\* \* \* \* \*

(138) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008), IBR approved for §§ 60.41b, 60.41c, and 60.5580.

\* \* \* \* \*

(187) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§ 60.41b, 60.41c, and 60.5580.

\* \* \* \* \*

(190) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§ 60.41b, 60.41c, and 60.5580.

\* \* \* \* \*

(m) \* \* \*

(1) ISO 2314:2009(E), Gas turbines—Acceptance tests, Third edition

(December 15, 2009), IBR approved for § 60.5580.

\* \* \* \* \*

■ 3. Part 60 is amended by adding subpart TTTT to read as follows:

**Subpart TTTT—Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units**

**Applicability**

Sec.

60.5508 What is the purpose of this subpart?

60.5509 Am I subject to this subpart?

**Emission Standards**

60.5515 Which pollutants are regulated by this subpart?

60.5520 What CO<sub>2</sub> emissions standard must I meet?

**General Compliance Requirements**

60.5525 What are my general requirements for complying with this subpart?

**Monitoring and Compliance Determination Procedures**

60.5535 How do I monitor and collect data to demonstrate compliance?

60.5540 How do I demonstrate compliance with my CO<sub>2</sub> emissions standard and determine excess emissions?

**Notifications, Reports, and Records**

60.5550 What notifications must I submit and when?

60.5555 What reports must I submit and when?

60.5560 What records must I maintain?

60.5565 In what form and how long must I keep my records?

**Other Requirements and Information**

60.5570 What parts of the general provisions apply to my affected EGU?

60.5575 Who implements and enforces this subpart?

60.5580 What definitions apply to this subpart?

Table 1 of Subpart TTTT of Part 60—CO<sub>2</sub> Emission Standards for Affected Steam Generating Units and Integrated Gasification Combined Cycle Facilities that Commenced Construction after January 8, 2014 and Reconstruction or Modification after June 18, 2014

Table 2 of Subpart TTTT of Part 60—CO<sub>2</sub> Emission Standards for Affected Stationary Combustion Turbines that Commenced Construction after January 8, 2014 and Reconstruction after June 18, 2014 (Net Energy Output-based Standards Applicable as Approved by the Administrator)

Table 3 to Subpart TTTT of Part 60—Applicability of Subpart A of Part 60 (General Provisions) to Subpart TTTT

**Applicability**

**§ 60.5508 What is the purpose of this subpart?**

This subpart establishes emission standards and compliance schedules for the control of greenhouse gas (GHG) emissions from a steam generating unit,

IGCC, or a stationary combustion turbine that commences construction after January 8, 2014 or commences modification or reconstruction after June 18, 2014. An affected steam generating unit, IGCC, or stationary combustion turbine shall, for the purposes of this subpart, be referred to as an affected EGU.

**§ 60.5509 Am I subject to this subpart?**

(a) Except as provided for in paragraph (b) of this section, the GHG standards included in this subpart apply to any steam generating unit, IGCC, or stationary combustion turbine that commenced construction after January 8, 2014 or commenced reconstruction after June 18, 2014 that meets the relevant applicability conditions in paragraphs (a)(1) and (2) of this section. The GHG standards included in this subpart also apply to any steam generating unit or IGCC that commenced modification after June 18, 2014 that meets the relevant applicability conditions in paragraphs (a)(1) and (2) of this section.

(1) Has a base load rating greater than 260 GJ/h (250 MMBtu/h) of fossil fuel (either alone or in combination with any other fuel); and

(2) Serves a generator or generators capable of selling greater than 25 MW of electricity to a utility power distribution system.

(b) You are not subject to the requirements of this subpart if your affected EGU meets any of the conditions specified in paragraphs (b)(1) through (10) of this section.

(1) Your EGU is a steam generating unit or IGCC that is currently and always has been subject to a federally enforceable permit condition limiting annual net-electric sales to no more than one-third of its potential electric output or 219,000 MWh, whichever is greater.

(2) Your EGU is capable of combusting 50 percent or more non-fossil fuel and is also subject to a federally enforceable permit condition limiting the annual capacity factor for all fossil fuels combined of 10 percent (0.10) or less.

(3) Your EGU is a combined heat and power unit that is subject to a federally enforceable permit condition limiting annual net-electric sales to no more than either 219,000 MWh or the product of the design efficiency and the potential electric output, whichever is greater.

(4) Your EGU serves a generator along with other steam generating unit(s), IGCC, or stationary combustion turbine(s) where the effective generation capacity (determined based on a prorated output of the base load rating of each steam generating unit, IGCC, or

stationary combustion turbine) is 25 MW or less.

(5) Your EGU is a municipal waste combustor that is subject to subpart Eb of this part.

(6) Your EGU is a commercial or industrial solid waste incineration unit that is subject to subpart CCCC of this part.

(7) Your EGU is a steam generating unit or IGCC that undergoes a modification resulting in an hourly increase in CO<sub>2</sub> emissions (mass per hour) of 10 percent or less (2 significant figures). Modified units that are not subject to the requirements of this subpart pursuant to this subsection continue to be existing units under section 111 with respect to CO<sub>2</sub> emissions standards.

(8) Your EGU is a stationary combustion turbine that is not capable of combusting natural gas (e.g., not connected to a natural gas pipeline).

(9) The proposed Washington County EGU project described in Air Quality Permit No. 4911-303-0051-P-01-0 issued by the Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, effective April 8, 2010, provided that construction had not commenced for NSPS purposes as of January 8, 2014.

(10) The proposed Holcomb EGU project described in Air Emission Source Construction Permit 0550023 issued by the Kansas Department of Health and Environment, Division of Environment, effective December 16, 2010, provided that construction had not commenced for NSPS purposes as of January 8, 2014.

**Emission Standards**

**§ 60.5515 Which pollutants are regulated by this subpart?**

(a) The pollutants regulated by this subpart are greenhouse gases. The greenhouse gas standard in this subpart is in the form of a limitation on emission of carbon dioxide.

(b) *PSD and title V thresholds for greenhouse gases.* (1) For the purposes of 40 CFR 51.166(b)(49)(ii), with respect to GHG emissions from affected facilities, the “pollutant that is subject to the standard promulgated under section 111 of the Act” shall be considered to be the pollutant that otherwise is subject to regulation under the Act as defined in § 51.166(b)(48) of this chapter and in any SIP approved by the EPA that is interpreted to incorporate, or specifically incorporates, § 51.166(b)(48).

(2) For the purposes of 40 CFR 52.21(b)(50)(ii), with respect to GHG

emissions from affected facilities, the “pollutant that is subject to the standard promulgated under section 111 of the Act” shall be considered to be the pollutant that otherwise is subject to regulation under the Act as defined in § 52.21(b)(49) of this chapter.

(3) For the purposes of 40 CFR 70.2, with respect to greenhouse gas emissions from affected facilities, the “pollutant that is subject to any standard promulgated under section 111 of the Act” shall be considered to be the pollutant that otherwise is “subject to regulation” as defined in 40 CFR 70.2.

(4) For the purposes of 40 CFR 71.2, with respect to greenhouse gas emissions from affected facilities, the “pollutant that is subject to any standard promulgated under section 111 of the Act” shall be considered to be the pollutant that otherwise is “subject to regulation” as defined in 40 CFR 71.2.

**§ 60.5520 What CO<sub>2</sub> emission standard must I meet?**

(a) For each affected EGU subject to this subpart, you must not discharge from the affected EGU any gases that contain CO<sub>2</sub> in excess of the applicable CO<sub>2</sub> emission standard specified in Table 1 or 2 of this subpart, consistent with paragraphs (b), (c), and (d) of this section, as applicable.

(b) Except as specified in paragraphs (c) and (d) of this section, you must comply with the applicable gross energy output standard, and your operating permit must include monitoring, recordkeeping, and reporting methodologies based on the applicable gross energy output standard. For the remainder of this subpart (for sources that do not qualify under paragraphs (c) and (d) of this section), where the term “gross or net energy output” is used, the term that applies to you is “gross energy output.”

(c) As an alternate to meeting the requirements in paragraph (b) of this section, an owner or operator of a stationary combustion turbine may petition the Administrator in writing to comply with the alternate applicable net energy output standard. If the Administrator grants the petition, beginning on the date the Administrator grants the petition, the affected EGU must comply with the applicable net energy output-based standard included in this subpart. Your operating permit must include monitoring, recordkeeping, and reporting methodologies based on the applicable net energy output standard. For the remainder of this subpart, where the term “gross or net energy output” is used, the term that applies to you is “net energy output.” Owners or

operators complying with the net output-based standard must petition the Administrator to switch back to complying with the gross energy output-based standard.

(d) Stationary combustion turbines subject to a heat input-based standard in Table 2 of this subpart that are only permitted to burn one or more uniform fuels, as described in paragraph (d)(1) of this section, are only subject to the monitoring requirements in paragraph (d)(1). All other stationary combustion turbines subject to a heat input based standard in Table 2 are subject to the requirements in paragraph (d)(2) of this section.

(1) Stationary combustion turbines that are only permitted to burn fuels with a consistent chemical composition (*i.e.*, uniform fuels) that result in a consistent emission rate of 160 lb CO<sub>2</sub>/MMBtu or less are not subject to any monitoring or reporting requirements under this subpart. These fuels include, but are not limited to, natural gas, methane, butane, butylene, ethane, ethylene, propane, naphtha, propylene, jet fuel kerosene, No. 1 fuel oil, No. 2 fuel oil, and biodiesel. Stationary

combustion turbines qualifying under this paragraph are only required to maintain purchase records for permitted fuels.

(2) Stationary combustion turbines permitted to burn fuels that do not have a consistent chemical composition or that do not have an emission rate of 160 lb CO<sub>2</sub>/MMBtu or less (*e.g.*, non-uniform fuels such as residual oil and non-jet fuel kerosene) must follow the monitoring, recordkeeping, and reporting requirements necessary to complete the heat input-based calculations under this subpart.

**General Compliance Requirements**

**§ 60.5525 What are my general requirements for complying with this subpart?**

Combustion turbines qualifying under § 60.5520(d)(1) are not subject to any requirements in this section other than the requirement to maintain fuel purchase records for permitted fuel(s). For all other affected sources, compliance with the applicable CO<sub>2</sub> emission standard of this subpart shall be determined on a 12-operating-month rolling average basis. See Table 1 or 2

of this subpart for the applicable CO<sub>2</sub> emission standards.

(a) You must be in compliance with the emission standards in this subpart that apply to your affected EGU at all times. However, you must determine compliance with the emission standards only at the end of the applicable operating month, as provided in paragraph (a)(1) of this section.

(1) For each affected EGU subject to a CO<sub>2</sub> emissions standard based on a 12-operating-month rolling average, you must determine compliance monthly by calculating the average CO<sub>2</sub> emissions rate for the affected EGU at the end of the initial and each subsequent 12-operating-month period.

(2) Consistent with § 60.5520(d)(2), if your affected stationary combustion turbine is subject to an input-based CO<sub>2</sub> emissions standard, you must determine the total heat input in million Btus (MMBtu) from natural gas (HTIP<sub>ng</sub>) and the total heat input from all other fuels combined (HTIP<sub>o</sub>) using one of the methods under § 60.5535(d)(2). You must then use the following equation to determine the applicable emissions standard during the compliance period:

$$CO_2 \text{ emission standard} = \frac{(120 \times HTIP_{ng}) + (160 \times HTIP_o)}{HTIP_{ng} + HTIP_o} \quad (\text{Eq. 1})$$

Where:

CO<sub>2</sub> emission standard = the emission standard during the compliance period in units of lb/MMBtu.

HTIP<sub>ng</sub> = the heat input in MMBtu from natural gas.

HTIP<sub>o</sub> = the heat input in MMBtu from all fuels other than natural gas.

120 = allowable emission rate in lb of CO<sub>2</sub>/MMBtu for heat input derived from natural gas.

160 = allowable emission rate in lb of CO<sub>2</sub>/MMBtu for heat input derived from all fuels other than natural gas.

(b) At all times you must operate and maintain each affected EGU, including associated equipment and monitors, in a manner consistent with safety and good air pollution control practice. The Administrator will determine if you are using consistent operation and maintenance procedures based on information available to the Administrator that may include, but is not limited to, fuel use records, monitoring results, review of operation and maintenance procedures and records, review of reports required by this subpart, and inspection of the EGU.

(c) Within 30 days after the end of the initial compliance period (*i.e.*, no more than 30 days after the first 12-operating-month compliance period), you must

make an initial compliance determination for your affected EGU(s) with respect to the applicable emissions standard in Table 1 or 2 of this subpart, in accordance with the requirements in this subpart. The first operating month included in the initial 12-operating-month compliance period shall be determined as follows:

(1) For an affected EGU that commences commercial operation (as defined in § 72.2 of this chapter) on or after October 23, 2015, the first month of the initial compliance period shall be the first operating month (as defined in § 60.5580) after the calendar month in which emissions reporting is required to begin under:

(i) Section 63.5555(c)(3)(i), for units subject to the Acid Rain Program; or

(ii) Section 63.5555(c)(3)(ii)(A), for units that are not in the Acid Rain Program.

(2) For an affected EGU that has commenced COMMERCIAL operation (as defined in § 72.2 of this chapter) prior to October 23, 2015:

(i) If the date on which emissions reporting is required to begin under § 75.64(a) of this chapter has passed prior to October 23, 2015, emissions reporting shall begin according to

§ 63.5555(c)(3)(i) (for Acid Rain program units), or according to § 63.5555(c)(3)(ii)(B) (for units that are not subject to the Acid Rain Program). The first month of the initial compliance period shall be the first operating month (as defined in § 60.5580) after the calendar month in which the rule becomes effective; or

(ii) If the date on which emissions reporting is required to begin under § 75.64(a) of this chapter occurs on or after October 23, 2015, then the first month of the initial compliance period shall be the first operating month (as defined in § 60.5580) after the calendar month in which emissions reporting is required to begin under § 63.5555(c)(3)(ii)(A).

(3) For a modified or reconstructed EGU that becomes subject to this subpart, the first month of the initial compliance period shall be the first operating month (as defined in § 60.5580) after the calendar month in which emissions reporting is required to begin under § 63.5555(c)(3)(iii).

## Monitoring and Compliance Determination Procedures

### § 60.5535 How do I monitor and collect data to demonstrate compliance?

(a) Combustion turbines qualifying under § 60.5520(d)(1) are not subject to any requirements in this section other than the requirement to maintain fuel purchase records for permitted fuel(s). If your combustion turbine uses non-uniform fuels as specified under § 60.5520(d)(2), you must monitor heat input in accordance with paragraph (c)(1) of this section, and you must monitor CO<sub>2</sub> emissions in accordance with either paragraph (b), (c)(2), or (c)(5) of this section. For all other affected sources, you must prepare a monitoring plan to quantify the hourly CO<sub>2</sub> mass emission rate (tons/h), in accordance with the applicable provisions in § 75.53(g) and (h) of this chapter. The electronic portion of the monitoring plan must be submitted using the ECMPs Client Tool and must be in place prior to reporting emissions data and/or the results of monitoring system certification tests under this subpart. The monitoring plan must be updated as necessary. Monitoring plan submittals must be made by the Designated Representative (DR), the Alternate DR, or a delegated agent of the DR (see § 60.5555(c)).

(b) You must determine the hourly CO<sub>2</sub> mass emissions in kilograms (kg) from your affected EGU(s) according to paragraphs (b)(1) through (5) of this section, or, if applicable, as provided in paragraph (c) of this section.

(1) For an affected coal-fired EGU or for an IGCC unit you must, and for all other affected EGUs you may, install, certify, operate, maintain, and calibrate a CO<sub>2</sub> continuous emission monitoring system (CEMS) to directly measure and record hourly average CO<sub>2</sub> concentrations in the affected EGU exhaust gases emitted to the atmosphere, and a flow monitoring system to measure hourly average stack gas flow rates, according to § 75.10(a)(3)(i) of this chapter. As an alternative to direct measurement of CO<sub>2</sub> concentration, provided that your EGU does not use carbon separation (e.g., carbon capture and storage), you may use data from a certified oxygen (O<sub>2</sub>) monitor to calculate hourly average CO<sub>2</sub> concentrations, in accordance with § 75.10(a)(3)(iii) of this chapter. If you measure CO<sub>2</sub> concentration on a dry basis, you must also install, certify, operate, maintain, and calibrate a continuous moisture monitoring system, according to § 75.11(b) of this chapter. Alternatively, you may either use an appropriate fuel-specific default

moisture value from § 75.11(b) or submit a petition to the Administrator under § 75.66 of this chapter for a site-specific default moisture value.

(2) For each continuous monitoring system that you use to determine the CO<sub>2</sub> mass emissions, you must meet the applicable certification and quality assurance procedures in § 75.20 of this chapter and appendices A and B to part 75 of this chapter.

(3) You must use only unadjusted exhaust gas volumetric flow rates to determine the hourly CO<sub>2</sub> mass emissions rate from the affected EGU; you must not apply the bias adjustment factors described in Section 7.6.5 of appendix A to part 75 of this chapter to the exhaust gas flow rate data.

(4) You must select an appropriate reference method to setup (characterize) the flow monitor and to perform the ongoing RATAs, in accordance with part 75 of this chapter. If you use a Type-S pitot tube or a pitot tube assembly for the flow RATAs, you must calibrate the pitot tube or pitot tube assembly; you may not use the 0.84 default Type-S pitot tube coefficient specified in Method 2.

(5) Calculate the hourly CO<sub>2</sub> mass emissions (kg) as described in paragraphs (b)(5)(i) through (iv) of this section. Perform this calculation only for “valid operating hours”, as defined in § 60.5540(a)(1).

(i) Begin with the hourly CO<sub>2</sub> mass emission rate (tons/h), obtained either from Equation F-11 in Appendix F to part 75 of this chapter (if CO<sub>2</sub> concentration is measured on a wet basis), or by following the procedure in section 4.2 of appendix F to part 75 of this chapter (if CO<sub>2</sub> concentration is measured on a dry basis).

(ii) Next, multiply each hourly CO<sub>2</sub> mass emission rate by the EGU or stack operating time in hours (as defined in § 72.2 of this chapter), to convert it to tons of CO<sub>2</sub>.

(iii) Finally, multiply the result from paragraph (b)(5)(ii) of this section by 909.1 to convert it from tons of CO<sub>2</sub> to kg. Round off to the nearest kg.

(iv) The hourly CO<sub>2</sub> tons/h values and EGU (or stack) operating times used to calculate CO<sub>2</sub> mass emissions are required to be recorded under § 75.57(e) of this chapter and must be reported electronically under § 75.64(a)(6) of this chapter. You must use these data to calculate the hourly CO<sub>2</sub> mass emissions.

(c) If your affected EGU exclusively combusts liquid fuel and/or gaseous fuel, as an alternative to complying with paragraph (b) of this section, you may determine the hourly CO<sub>2</sub> mass emissions according to paragraphs (c)(1)

through (4) of this section. If you use non-uniform fuels as specified in § 60.5520(d)(2), you may determine CO<sub>2</sub> mass emissions during the compliance period according to paragraph (c)(5) of this section.

(1) If you are subject to an output-based standard and you do not install CEMS in accordance with paragraph (b) of this section, you must implement the applicable procedures in appendix D to part 75 of this chapter to determine hourly EGU heat input rates (MMBtu/h), based on hourly measurements of fuel flow rate and periodic determinations of the gross calorific value (GCV) of each fuel combusted.

(2) For each measured hourly heat input rate, use Equation G-4 in appendix G to part 75 of this chapter to calculate the hourly CO<sub>2</sub> mass emission rate (tons/h). You may determine site-specific carbon-based F-factors (F<sub>c</sub>) using Equation F-7b in section 3.3.6 of appendix F to part 75 of this chapter, and you may use these F<sub>c</sub> values in the emissions calculations instead of using the default F<sub>c</sub> values in the Equation G-4 nomenclature.

(3) For each “valid operating hour” (as defined in § 60.5540(a)(1)), multiply the hourly tons/h CO<sub>2</sub> mass emission rate from paragraph (c)(2) of this section by the EGU or stack operating time in hours (as defined in § 72.2 of this chapter), to convert it to tons of CO<sub>2</sub>. Then, multiply the result by 909.1 to convert from tons of CO<sub>2</sub> to kg. Round off to the nearest two significant figures.

(4) The hourly CO<sub>2</sub> tons/h values and EGU (or stack) operating times used to calculate CO<sub>2</sub> mass emissions are required to be recorded under § 75.57(e) of this chapter and must be reported electronically under § 75.64(a)(6) of this chapter. You must use these data to calculate the hourly CO<sub>2</sub> mass emissions.

(5) If you operate a combustion turbine firing non-uniform fuels, as an alternative to following paragraphs (c)(1) through (4) of this section, you may determine CO<sub>2</sub> emissions during the compliance period using one of the following methods:

(i) Units firing fuel gas may determine the heat input during the compliance period following the procedure under § 60.107a(d) and convert this heat input to CO<sub>2</sub> emissions using Equation G-4 in appendix G to part 75 of this chapter.

(ii) You may use the procedure for determining CO<sub>2</sub> emissions during the compliance period based on the use of the Tier 3 methodology under § 98.33(a)(3) of this chapter.

(d) Consistent with § 60.5520, you must determine the basis of the emissions standard that applies to your

affected source in accordance with either paragraph (d)(1) or (2) of this section, as applicable:

(1) If you operate a source subject to an emissions standard established on an output basis (e.g., lb of CO<sub>2</sub> per gross or net MWh of energy output), you must install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output or net electric output, as applicable, from the affected EGU(s). These measurements must be performed using 0.2 class electricity metering instrumentation and calibration procedures as specified under ANSI Standards No. C12.20 (incorporated by reference, see § 60.17). For a combined heat and power (CHP) EGU, as defined in § 60.5580, you must also install, calibrate, maintain, and operate meters to continuously (i.e., hour-by-hour) determine and record the total useful thermal output. For process steam applications, you will need to install, calibrate, maintain, and operate meters to continuously determine and record the hourly steam flow rate, temperature, and pressure. Your plan shall ensure that you install, calibrate, maintain, and operate meters to record each component of the determination, hour-by-hour.

(2) If you operate a source subject to an emissions standard established on a heat-input basis (e.g., lb CO<sub>2</sub>/MMBtu) and your affected source uses non-uniform heating value fuels as delineated under § 60.5520(d), you must determine the total heat input for each fuel fired during the compliance period in accordance with one of the following procedures:

- (i) Appendix D to part 75 of this chapter;
- (ii) The procedures for monitoring heat input under § 60.107a(d);
- (iii) If you monitor CO<sub>2</sub> emissions in accordance with the Tier 3 methodology under § 98.33(a)(3) of this chapter, you may convert your CO<sub>2</sub> emissions to heat input using the appropriate emission factor in Table C-1 of part 98 of this chapter. If your fuel is not listed in Table C-1, you must determine a fuel-specific carbon-based F-factor (F<sub>c</sub>) in accordance with section 12.3.2 of EPA Method 19 of appendix A-7 to this part, and you must convert your CO<sub>2</sub> emissions to heat input using Equation G-4 in appendix G to part 75 of this chapter.

(e) Consistent with § 60.5520, if two or more affected EGUs serve a common electric generator, you must apportion the combined hourly gross or net energy output to the individual affected EGUs according to the fraction of the total steam load contributed by each EGU.

Alternatively, if the EGUs are identical, you may apportion the combined hourly gross or net electrical load to the individual EGUs according to the fraction of the total heat input contributed by each EGU.

(f) In accordance with §§ 60.13(g) and 60.5520, if two or more affected EGUs that implement the continuous emission monitoring provisions in paragraph (b) of this section share a common exhaust gas stack and are subject to the same emissions standard in Table 1 or 2 of this subpart, you may monitor the hourly CO<sub>2</sub> mass emissions at the common stack in lieu of monitoring each EGU separately. If you choose this option, the hourly gross or net energy output (electric, thermal, and/or mechanical, as applicable) must be the sum of the hourly loads for the individual affected EGUs and you must express the operating time as “stack operating hours” (as defined in § 72.2 of this chapter). If you attain compliance with the applicable emissions standard in § 60.5520 at the common stack, each affected EGU sharing the stack is in compliance.

(g) In accordance with §§ 60.13(g) and 60.5520 if the exhaust gases from an affected EGU that implements the continuous emission monitoring provisions in paragraph (b) of this section are emitted to the atmosphere through multiple stacks (or if the exhaust gases are routed to a common stack through multiple ducts and you elect to monitor in the ducts), you must monitor the hourly CO<sub>2</sub> mass emissions and the “stack operating time” (as defined in § 72.2 of this chapter) at each stack or duct separately. In this case, you must determine compliance with the applicable emissions standard in Table 1 or 2 of this subpart by summing the CO<sub>2</sub> mass emissions measured at the individual stacks or ducts and dividing by the total gross or net energy output for the affected EGU.

**§ 60.5540 How do I demonstrate compliance with my CO<sub>2</sub> emissions standard and determine excess emissions?**

(a) In accordance with § 60.5520, if you are subject to an output-based emission standard or you burn non-uniform fuels as specified in § 60.5520(d)(2), you must demonstrate compliance with the applicable CO<sub>2</sub> emission standard in Table 1 or 2 of this subpart as required in this section. For the initial and each subsequent 12-operating-month rolling average compliance period, you must follow the procedures in paragraphs (a)(1) through (7) of this section to calculate the CO<sub>2</sub> mass emissions rate for your affected EGU(s) in units of the applicable

emissions standard (i.e., either kg/MWh or lb/MMBtu). You must use the hourly CO<sub>2</sub> mass emissions calculated under § 60.5535(b) or (c), as applicable, and either the generating load data from § 60.5535(d)(1) for output-based calculations or the heat input data from § 60.5535(d)(2) for heat-input-based calculations. Combustion turbines firing non-uniform fuels that contain CO<sub>2</sub> prior to combustion (e.g., blast furnace gas or landfill gas) may sample the fuel stream to determine the quantity of CO<sub>2</sub> present in the fuel prior to combustion and exclude this portion of the CO<sub>2</sub> mass emissions from compliance determinations.

(1) Each compliance period shall include only “valid operating hours” in the compliance period, i.e., operating hours for which:

- (i) “Valid data” (as defined in § 60.5580) are obtained for all of the parameters used to determine the hourly CO<sub>2</sub> mass emissions (kg) and, if a heat input-based standard applies, all the parameters used to determine total heat input for the hour are also obtained; and
- (ii) The corresponding hourly gross or net energy output value is also valid data (Note: For hours with no useful output, zero is considered to be a valid value).

(2) You must exclude operating hours in which:

- (i) The substitute data provisions of part 75 of this chapter are applied for any of the parameters used to determine the hourly CO<sub>2</sub> mass emissions or, if a heat input-based standard applies, for any parameters used to determine the hourly heat input; or
- (ii) An exceedance of the full-scale range of a continuous emission monitoring system occurs for any of the parameters used to determine the hourly CO<sub>2</sub> mass emissions or, if applicable, to determine the hourly heat input; or
- (iii) The total gross or net energy output (P<sub>gross/net</sub>) or, if applicable, the total heat input is unavailable.

(3) For each compliance period, at least 95 percent of the operating hours in the compliance period must be valid operating hours, as defined in paragraph (a)(1) of this section.

(4) You must calculate the total CO<sub>2</sub> mass emissions by summing the valid hourly CO<sub>2</sub> mass emissions values from § 60.5535 for all of the valid operating hours in the compliance period.

(5) Sources subject to output based standards. For each valid operating hour of the compliance period that was used in paragraph (a)(4) of this section to calculate the total CO<sub>2</sub> mass emissions, you must determine P<sub>gross/net</sub> (the corresponding hourly gross or net energy output in MWh) according to the

procedures in paragraphs (a)(3)(i) and (ii) of this section, as appropriate for the type of affected EGU(s). For an operating hour in which a valid CO<sub>2</sub> mass emissions value is determined according to paragraph (a)(1)(i) of this section, if there is no gross or net electrical output, but there is mechanical or useful thermal output, you must still determine the gross or net energy output for that hour. In addition,

for an operating hour in which a valid CO<sub>2</sub> mass emissions value is determined according to paragraph (a)(1)(i) of this section, but there is no (*i.e.*, zero) gross electrical, mechanical, or useful thermal output, you must use that hour in the compliance determination. For hours or partial hours where the gross electric output is equal to or less than the auxiliary loads, net electric output shall be counted as zero for this calculation.

(i) Calculate  $P_{gross/net}$  for your affected EGU using the following equation. All terms in the equation must be expressed in units of megawatt-hours (MWh). To convert each hourly gross or net energy output (consistent with § 60.5520) value reported under part 75 of this chapter to MWh, multiply by the corresponding EGU or stack operating time.

$$P_{gross/net} = \frac{(Pe)_{ST} + (Pe)_{CT} + (Pe)_{IE} - (Pe)_{FW} - (Pe)_A}{TDF} + [(Pt)_{PS} + (Pt)_{HR} + (Pt)_{IE}] \quad (\text{Eq. 2})$$

Where:

$P_{gross/net}$  = In accordance with § 60.5520, gross or net energy output of your affected EGU for each valid operating hour (as defined in § 60.5540(a)(1)) in MWh.

( $Pe$ )<sub>ST</sub> = Electric energy output plus mechanical energy output (if any) of steam turbines in MWh.

( $Pe$ )<sub>CT</sub> = Electric energy output plus mechanical energy output (if any) of stationary combustion turbine(s) in MWh.

( $Pe$ )<sub>IE</sub> = Electric energy output plus mechanical energy output (if any) of your affected EGU's integrated equipment that provides electricity or mechanical energy to the affected EGU or auxiliary equipment in MWh.

( $Pe$ )<sub>FW</sub> = Electric energy used to power boiler feedwater pumps at steam generating units in MWh. Not applicable to stationary combustion turbines, IGCC EGUs, or EGUs complying with a net energy output based standard.

( $Pe$ )<sub>A</sub> = Electric energy used for any auxiliary loads in MWh. Not applicable for determining  $P_{gross}$ .

( $Pt$ )<sub>PS</sub> = Useful thermal output of steam (measured relative to SATP conditions, as applicable) that is used for applications that do not generate additional electricity, produce mechanical energy output, or enhance the performance of the affected EGU. This is calculated using the equation specified in paragraph (a)(5)(ii) of this section in MWh.

( $Pt$ )<sub>HR</sub> = Non steam useful thermal output (measured relative to SATP conditions, as applicable) from heat recovery that is used for applications other than steam generation or performance enhancement of the affected EGU in MWh.

( $Pt$ )<sub>IE</sub> = Useful thermal output (relative to SATP conditions, as applicable) from any integrated equipment is used for applications that do not generate additional steam, electricity, produce mechanical energy output, or enhance the performance of the affected EGU in MWh.

TDF = Electric Transmission and Distribution Factor of 0.95 for a combined heat and power affected EGU where at least on an annual basis 20.0 percent of the total gross or net energy output consists of electric or direct mechanical output and 20.0 percent of the total gross or net

energy output consists of useful thermal output on a 12-operating-month rolling average basis, or 1.0 for all other affected EGUs.

(ii) If applicable to your affected EGU (for example, for combined heat and power), you must calculate ( $Pt$ )<sub>PS</sub> using the following equation:

$$(Pt)_{PS} = \frac{Q_m \times H}{CF} \quad (\text{Eq. 3})$$

Where:

$Q_m$  = Measured steam flow in kilograms (kg) (or pounds (lb)) for the operating hour.

$H$  = Enthalpy of the steam at measured temperature and pressure (relative to SATP conditions or the energy in the condensate return line, as applicable) in Joules per kilogram (J/kg) (or Btu/lb).

$CF$  = Conversion factor of  $3.6 \times 10^9$  J/MWh or  $3.413 \times 10^6$  Btu/MWh.

(6) *Calculation of annual basis for standard.* Sources complying with energy output-based standards must calculate the basis (*i.e.*, denominator) of their actual annual emission rate in accordance with paragraph (a)(6)(i) of this section. Sources complying with heat input based standards must calculate the basis of their actual annual emission rate in accordance with paragraph (a)(6)(ii) of this section.

(i) In accordance with § 60.5520 if you are subject to an output-based standard, you must calculate the total gross or net energy output for the affected EGU's compliance period by summing the hourly gross or net energy output values for the affected EGU that you determined under paragraph (a)(5) of this section for all of the valid operating hours in the applicable compliance period.

(ii) If you are subject to a heat input-based standard, you must calculate the total heat input for each fuel fired during the compliance period. The calculation of total heat input for each individual fuel must include all valid operating hours and must also be consistent with any fuel-specific procedures specified within your

selected monitoring option under § 60.5535(d)(2).

(7) If you are subject to an output-based standard, you must calculate the CO<sub>2</sub> mass emissions rate for the affected EGU(s) (kg/MWh) by dividing the total CO<sub>2</sub> mass emissions value calculated according to the procedures in paragraph (a)(4) of this section by the total gross or net energy output value calculated according to the procedures in paragraph (a)(6)(i) of this section. Round off the result to two significant figures if the calculated value is less than 1,000; round the result to three significant figures if the calculated value is greater than 1,000. If you are subject to a heat input-based standard, you must calculate the CO<sub>2</sub> mass emissions rate for the affected EGU(s) (lb/MMBtu) by dividing the total CO<sub>2</sub> mass emissions value calculated according to the procedures in paragraph (a)(4) of this section by the total heat input calculated according to the procedures in paragraph (a)(6)(ii) of this section. Round off the result to two significant figures.

(b) In accordance with § 60.5520, to demonstrate compliance with the applicable CO<sub>2</sub> emission standard, for the initial and each subsequent 12-operating-month compliance period, the CO<sub>2</sub> mass emissions rate for your affected EGU must be determined according to the procedures specified in paragraph (a)(1) through (7) of this section and must be less than or equal to the applicable CO<sub>2</sub> emissions standard in Table 1 or 2 of this part, or the emissions standard calculated in accordance with § 60.5525(a)(2).

#### Notification, Reports, and Records

##### § 60.5550 What notifications must I submit and when?

(a) You must prepare and submit the notifications specified in §§ 60.7(a)(1) and (3) and 60.19, as applicable to your affected EGU(s) (see Table 3 of this subpart).



(b) You must prepare and submit notifications specified in § 75.61 of this chapter, as applicable, to your affected EGUs.

**§ 60.5555 What reports must I submit and when?**

(a) You must prepare and submit reports according to paragraphs (a) through (d) of this section, as applicable.

(1) For affected EGUs that are required by § 60.5525 to conduct initial and on-going compliance determinations on a 12-operating-month rolling average basis, you must submit electronic quarterly reports as follows. After you have accumulated the first 12-operating months for the affected EGU, you must submit a report for the calendar quarter that includes the twelfth operating month no later than 30 days after the end of that quarter. Thereafter, you must submit a report for each subsequent calendar quarter, no later than 30 days after the end of the quarter.

(2) In each quarterly report you must include the following information, as applicable:

(i) Each rolling average CO<sub>2</sub> mass emissions rate for which the last (twelfth) operating month in a 12-operating-month compliance period falls within the calendar quarter. You must calculate each average CO<sub>2</sub> mass emissions rate for the compliance period according to the procedures in § 60.5540. You must report the dates (month and year) of the first and twelfth operating months in each compliance period for which you performed a CO<sub>2</sub> mass emissions rate calculation. If there are no compliance periods that end in the quarter, you must include a statement to that effect;

(ii) If one or more compliance periods end in the quarter, you must identify each operating month in the calendar quarter where your EGU violated the applicable CO<sub>2</sub> emission standard;

(iii) If one or more compliance periods end in the quarter and there are no violations for the affected EGU, you must include a statement indicating this in the report;

(iv) The percentage of valid operating hours in each 12-operating-month compliance period described in paragraph (a)(1)(i) of this section (*i.e.*, the total number of valid operating hours (as defined in § 60.5540(a)(1)) in that period divided by the total number of operating hours in that period, multiplied by 100 percent);

(v) Consistent with § 60.5520, the CO<sub>2</sub> emissions standard (as identified in Table 1 or 2 of this part) with which your affected EGU must comply; and

(vi) Consistent with § 60.5520, an indication whether or not the hourly gross or net energy output ( $P_{gross/net}$ ) values used in the compliance determinations are based solely upon gross electrical load.

(3) In the final quarterly report of each calendar year, you must include the following:

(i) Consistent with § 60.5520, gross energy output or net energy output sold to an electric grid, as applicable to the units of your emission standard, over the four quarters of the calendar year; and

(ii) The potential electric output of the EGU.

(b) You must submit all electronic reports required under paragraph (a) of this section using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of EPA.

(c)(1) For affected EGUs under this subpart that are also subject to the Acid Rain Program, you must meet all applicable reporting requirements and submit reports as required under subpart G of part 75 of this chapter.

(2) For affected EGUs under this subpart that are not in the Acid Rain Program, you must also meet the reporting requirements and submit reports as required under subpart G of part 75 of this chapter, to the extent that those requirements and reports provide applicable data for the compliance demonstrations required under this subpart.

(3)(i) For all newly-constructed affected EGUs under this subpart that are also subject to the Acid Rain Program, you must begin submitting the quarterly electronic emissions reports described in paragraph (c)(1) of this section in accordance with § 75.64(a) of this chapter, *i.e.*, beginning with data recorded on and after the earlier of:

(A) The date of provisional certification, as defined in § 75.20(a)(3) of this chapter; or

(B) 180 days after the date on which the EGU commences commercial operation (as defined in § 72.2 of this chapter).

(ii) For newly-constructed affected EGUs under this subpart that are not subject to the Acid Rain Program, you must begin submitting the quarterly electronic reports described in paragraph (c)(2) of this section, beginning with data recorded on and after:

(A) The date on which reporting is required to begin under § 75.64(a) of this chapter, if that date occurs on or after October 23, 2015; or

(B) October 23, 2015, if the date on which reporting would ordinarily be required to begin under § 75.64(a) of this chapter has passed prior to October 23, 2015.

(iii) For reconstructed or modified units, reporting of emissions data shall begin at the date on which the EGU becomes an affected unit under this subpart, provided that the ECMPS Client Tool is able to receive and process net energy output data on that date. Otherwise, emissions data reporting shall be on a gross energy output basis until the date that the Client Tool is first able to receive and process net energy output data.

(4) If any required monitoring system has not been provisionally certified by the applicable date on which emissions data reporting is required to begin under paragraph (c)(3) of this section, the maximum (or in some cases, minimum) potential value for the parameter measured by the monitoring system shall be reported until the required certification testing is successfully completed, in accordance with § 75.4(j) of this chapter, § 75.37(b) of this chapter, or section 2.4 of appendix D to part 75 of this chapter (as applicable). Operating hours in which CO<sub>2</sub> mass emission rates are calculated using maximum potential values are not “valid operating hours” (as defined in § 60.5540(a)(1)), and shall not be used in the compliance determinations under § 60.5540.

(d) For affected EGUs subject to the Acid Rain Program, the reports required under paragraphs (a) and (c)(1) of this section shall be submitted by:

(1) The person appointed as the Designated Representative (DR) under § 72.20 of this chapter; or

(2) The person appointed as the Alternate Designated Representative (ADR) under § 72.22 of this chapter; or

(3) A person (or persons) authorized by the DR or ADR under § 72.26 of this chapter to make the required submissions.

(e) For affected EGUs that are not subject to the Acid Rain Program, the owner or operator shall appoint a DR and (optionally) an ADR to submit the reports required under paragraphs (a) and (c)(2) of this section. The DR and ADR must register with the Clean Air Markets Division (CAMD) Business System. The DR may delegate the authority to make the required submissions to one or more persons.

(f) If your affected EGU captures CO<sub>2</sub> to meet the applicable emission limit, you must report in accordance with the requirements of 40 CFR part 98, subpart PP and either:

(1) Report in accordance with the requirements of 40 CFR part 98, subpart RR, if injection occurs on-site, or

(2) Transfer the captured CO<sub>2</sub> to an EGU or facility that reports in accordance with the requirements of 40 CFR part 98, subpart RR, if injection occurs off-site.

(3) Transfer the captured CO<sub>2</sub> to a facility that has received an innovative technology waiver from EPA pursuant to paragraph (g) of this section.

(g) Any person may request the Administrator to issue a waiver of the requirement that captured CO<sub>2</sub> from an affected EGU be transferred to a facility reporting under 40 CFR part 98, subpart RR. To receive a waiver, the applicant must demonstrate to the Administrator that its technology will store captured CO<sub>2</sub> as effectively as geologic sequestration, and that the proposed technology will not cause or contribute to an unreasonable risk to public health, welfare, or safety. In making this determination, the Administrator shall consider (among other factors) operating history of the technology, whether the technology will increase emissions or other releases of any pollutant other than CO<sub>2</sub>, and permanence of the CO<sub>2</sub> storage. The Administrator may test the system itself, or require the applicant to perform any tests considered by the Administrator to be necessary to show the technology's effectiveness, safety, and ability to store captured CO<sub>2</sub> without release. The Administrator may grant conditional approval of a technology, with the approval conditioned on monitoring and reporting of operations. The Administrator may also withdraw approval of the waiver on evidence of releases of CO<sub>2</sub> or other pollutants. The Administrator will provide notice to the public of any application under this provision and provide public notice of any proposed action on a petition before the Administrator takes final action.

#### **§ 60.5560 What records must I maintain?**

(a) You must maintain records of the information you used to demonstrate compliance with this subpart as specified in § 60.7(b) and (f).

(b)(1) For affected EGUs subject to the Acid Rain Program, you must follow the applicable recordkeeping requirements and maintain records as required under subpart F of part 75 of this chapter.

(2) For affected EGUs that are not subject to the Acid Rain Program, you must also follow the recordkeeping requirements and maintain records as required under subpart F of part 75 of this chapter, to the extent that those records provide applicable data for the compliance determinations required

under this subpart. Regardless of the prior sentence, at a minimum, the following records must be kept, as applicable to the types of continuous monitoring systems used to demonstrate compliance under this subpart:

(i) Monitoring plan records under § 75.53(g) and (h) of this chapter;

(ii) Operating parameter records under § 75.57(b)(1) through (4) of this chapter;

(iii) The records under § 75.57(c)(2) of this chapter, for stack gas volumetric flow rate;

(iv) The records under § 75.57(c)(3) of this chapter for continuous moisture monitoring systems;

(v) The records under § 75.57(e)(1) of this chapter, except for paragraph (e)(1)(x), for CO<sub>2</sub> concentration monitoring systems or O<sub>2</sub> monitors used to calculate CO<sub>2</sub> concentration;

(vi) The records under § 75.58(c)(1) of this chapter, specifically paragraphs (c)(1)(i), (ii), and (viii) through (xiv), for oil flow meters;

(vii) The records under § 75.58(c)(4) of this chapter, specifically paragraphs (c)(4)(i), (ii), (iv), (v), and (vii) through (xi), for gas flow meters;

(viii) The quality-assurance records under § 75.59(a) of this chapter, specifically paragraphs (a)(1) through (12) and (15), for CEMS;

(ix) The quality-assurance records under § 75.59(a) of this chapter, specifically paragraphs (b)(1) through (4), for fuel flow meters; and

(x) Records of data acquisition and handling system (DAHS) verification under § 75.59(e) of this chapter.

(c) You must keep records of the calculations you performed to determine the hourly and total CO<sub>2</sub> mass emissions (tons) for:

(1) Each operating month (for all affected EGUs); and

(2) Each compliance period, including, each 12-operating-month compliance period.

(d) Consistent with § 60.5520, you must keep records of the applicable data recorded and calculations performed that you used to determine your affected EGU's gross or net energy output for each operating month.

(e) You must keep records of the calculations you performed to determine the percentage of valid CO<sub>2</sub> mass emission rates in each compliance period.

(f) You must keep records of the calculations you performed to assess compliance with each applicable CO<sub>2</sub> mass emissions standard in Table 1 or 2 of this subpart.

(g) You must keep records of the calculations you performed to determine any site-specific carbon-

based F-factors you used in the emissions calculations (if applicable).

#### **§ 60.5565 In what form and how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review.

(b) You must maintain each record for 3 years after the date of conclusion of each compliance period.

(c) You must maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. You may maintain the records off site for the remaining year(s) as required by this subpart.

#### **Other Requirements and Information**

##### **§ 60.5570 What parts of the general provisions apply to my affected EGU?**

Notwithstanding any other provision of this chapter, certain parts of the general provisions in §§ 60.1 through 60.19, listed in Table 3 to this subpart, do not apply to your affected EGU.

##### **§ 60.5575 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by the EPA, or a delegated authority such as your state, local, or tribal agency. If the Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency, the Administrator retains the authorities listed in paragraphs (b)(1) through (5) of this section and does not transfer them to the state, local, or tribal agency. In addition, the EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the emission standards.

(2) Approval of major alternatives to test methods.

(3) Approval of major alternatives to monitoring.

(4) Approval of major alternatives to recordkeeping and reporting.

(5) Performance test and data reduction waivers under § 60.8(b).

**§ 60.5580 What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein will have the meaning given them in the Clean Air Act and in subpart A (general provisions of this part).

*Annual capacity factor* means the ratio between the actual heat input to an EGU during a calendar year and the potential heat input to the EGU had it been operated for 8,760 hours during a calendar year at the base load rating.

*Base load rating* means the maximum amount of heat input (fuel) that an EGU can combust on a steady state basis, as determined by the physical design and characteristics of the EGU at ISO conditions. For a stationary combustion turbine, *base load rating* includes the heat input from duct burners.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM International in ASTM D388–99 (Reapproved 2004)  $\epsilon^1$  (incorporated by reference, see § 60.17), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including, but not limited to, solvent-refined coal, gasified coal (not meeting the definition of natural gas), coal-oil mixtures, and coal-water mixtures are included in this definition for the purposes of this subpart.

*Combined cycle unit* means an electric generating unit that uses a stationary combustion turbine from which the heat from the turbine exhaust gases is recovered by a heat recovery steam generating unit (HRSG) to generate additional electricity.

*Combined heat and power unit or CHP unit*, (also known as “cogeneration”) means an electric generating unit that that use a steam generating unit or stationary combustion turbine to simultaneously produce both electric (or mechanical) and useful thermal output from the same primary energy source.

*Design efficiency* means the rated overall net efficiency (e.g., electric plus useful thermal output) on a lower heating value basis at the base load rating, at ISO conditions, and at the maximum useful thermal output (e.g., CHP unit with condensing steam turbines would determine the design efficiency at the maximum level of extraction and/or bypass). Design efficiency shall be determined using one of the following methods: ASME PTC 22 Gas Turbines (incorporated by reference, see § 60.17), ASME PTC 46 Overall Plant Performance (incorporated by reference, see § 60.17) or ISO 2314 Gas turbines—acceptance tests (incorporated by reference, see § 60.17).

*Distillate oil* means fuel oils that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM International in ASTM D396–98 (incorporated by reference, see § 60.17); diesel fuel oil numbers 1 and 2, as defined by ASTM International in ASTM D975–08a (incorporated by reference, see § 60.17); kerosene, as defined by ASTM International in ASTM D3699 (incorporated by reference, see § 60.17); biodiesel as defined by ASTM International in ASTM D6751 (incorporated by reference, see § 60.17); or biodiesel blends as defined by ASTM International in ASTM D7467 (incorporated by reference, see § 60.17).

*Electric Generating units or EGU* means any steam generating unit, IGCC unit, or stationary combustion turbine that is subject to this rule (i.e., meets the applicability criteria)

*Fossil fuel* means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such material for the purpose of creating useful heat.

*Gaseous fuel* means any fuel that is present as a gas at ISO conditions and includes, but is not limited to, natural gas, refinery fuel gas, process gas, coke-oven gas, synthetic gas, and gasified coal.

*Gross energy output* means:

(1) For stationary combustion turbines and IGCC, the gross electric or direct mechanical output from both the EGU (including, but not limited to, output from steam turbine(s), combustion turbine(s), and gas expander(s)) plus 100 percent of the useful thermal output.

(2) For steam generating units, the gross electric or mechanical output from the affected EGU(s) (including, but not limited to, output from steam turbine(s), combustion turbine(s), and gas expander(s)) minus any electricity used to power the feedwater pumps plus 100 percent of the useful thermal output;

(3) For combined heat and power facilities where at least 20.0 percent of the total gross energy output consists of electric or direct mechanical output and 20.0 percent of the total gross energy output consists of useful thermal output on a 12-operating-month rolling average basis, the gross electric or mechanical output from the affected EGU (including, but not limited to, output from steam turbine(s), combustion turbine(s), and gas expander(s)) minus any electricity used to power the feedwater pumps (the electric auxiliary load of boiler feedwater pumps is not applicable to IGCC facilities), that difference divided by 0.95, plus 100 percent of the useful thermal output.

*Heat recovery steam generating unit (HRSG)* means an EGU in which hot exhaust gases from the combustion turbine engine are routed in order to extract heat from the gases and generate useful output. Heat recovery steam generating units can be used with or without duct burners.

*Integrated gasification combined cycle facility or IGCC* means a combined cycle facility that is designed to burn fuels containing 50 percent (by heat input) or more solid-derived fuel not meeting the definition of natural gas, plus any integrated equipment that provides electricity or useful thermal output to the affected EGU or auxiliary equipment. The Administrator may waive the 50 percent solid-derived fuel requirement during periods of the gasification system construction, startup and commissioning, shutdown, or repair. No solid fuel is directly burned in the EGU during operation.

*ISO conditions* means 288 Kelvin (15°C), 60 percent relative humidity and 101.3 kilopascals pressure.

*Liquid fuel* means any fuel that is present as a liquid at ISO conditions and includes, but is not limited to, distillate oil and residual oil.

*Mechanical output* means the useful mechanical energy that is not used to operate the affected EGU(s), generate electricity and/or thermal energy, or to enhance the performance of the affected EGU. Mechanical energy measured in horsepower hour should be converted into MWh by multiplying it by 745.7 then dividing by 1,000,000.

*Natural gas* means a fluid mixture of hydrocarbons (e.g., methane, ethane, or propane), composed of at least 70 percent methane by volume or that has a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot), that maintains a gaseous state under ISO conditions. Finally, 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 CO<sub>2</sub> content or heating value.

*Net-electric sales* means:

(1) The gross electric sales to the utility power distribution system minus purchased power; or

(2) For combined heat and power facilities where at least 20.0 percent of the total gross energy output consists of electric or direct mechanical output and at least 20.0 percent of the total gross energy output consists of useful thermal output on an annual basis, the gross electric sales to the utility power

distribution system minus purchased power of the thermal host facility or facilities.

(3) Electricity supplied to other facilities that produce electricity to offset auxiliary loads are included when calculating net-electric sales.

(4) Electric sales that that result from a system emergency are not included when calculating net-electric sales.

*Net-electric output* means the amount of gross generation the generator(s) produces (including, but not limited to, output from steam turbine(s), combustion turbine(s), and gas expander(s)), as measured at the generator terminals, less the electricity used to operate the plant (*i.e.*, auxiliary loads); such uses include fuel handling equipment, pumps, fans, pollution control equipment, other electricity needs, and transformer losses as measured at the transmission side of the step up transformer (*e.g.*, the point of sale).

*Net energy output* means:

(1) The net electric or mechanical output from the affected EGU plus 100 percent of the useful thermal output; or

(2) For combined heat and power facilities where at least 20.0 percent of the total gross or net energy output consists of electric or direct mechanical output and at least 20.0 percent of the total gross or net energy output consists of useful thermal output on a 12-operating-month rolling average basis, the net electric or mechanical output from the affected EGU divided by 0.95, plus 100 percent of the useful thermal output.

*Operating month* means a calendar month during which any fuel is combusted in the affected EGU at any time.

*Petroleum* means crude oil or a fuel derived from crude oil, including, but not limited to, distillate and residual oil.

*Potential electric output* means 33 percent or the base load rating design efficiency at the maximum electric production rate (*e.g.*, CHP units with condensing steam turbines will operate at maximum electric production), whichever is greater, multiplied by the base load rating (expressed in MMBtu/h) of the EGU, multiplied by  $10^6$  Btu/MMBtu, divided by 3,413 Btu/KWh, divided by 1,000 kWh/MWh, and multiplied by 8,760 h/yr (*e.g.*, a 35 percent efficient affected EGU with a 100 MW (341 MMBtu/h) fossil fuel heat input capacity would have a 306,000 MWh 12-month potential electric output capacity).

*Standard ambient temperature and pressure (SATP) conditions* means 298.15 Kelvin (25 °C, 77 °F) and 100.0 kilopascals (14.504 psi, 0.987 atm) pressure. The enthalpy of water at SATP conditions is 50 Btu/lb.

*Solid fuel* means any fuel that has a definite shape and volume, has no tendency to flow or disperse under moderate stress, and is not liquid or gaseous at ISO conditions. This includes, but is not limited to, coal, biomass, and pulverized solid fuels.

*Stationary combustion turbine* means all equipment including, but not limited to, the turbine engine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), heat recovery system, fuel compressor, heater, and/or pump, post-combustion emission control technology, and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any combined cycle combustion turbine, and any combined heat and power combustion turbine based system plus any integrated equipment that provides electricity or useful thermal output to the combustion turbine engine, heat recovery system or auxiliary equipment. Stationary means that the combustion turbine is not self-propelled or intended to be propelled while performing its function. It may, however, be mounted on a vehicle for portability. A stationary combustion turbine that burns any solid fuel directly is considered a steam generating unit.

*Steam generating unit* means any furnace, boiler, or other device used for combusting fuel and producing steam (nuclear steam generators are not included) plus any integrated equipment that provides electricity or useful thermal output to the affected EGU(s) or auxiliary equipment.

*System emergency* means any abnormal system condition that the Regional Transmission Organizations (RTO), Independent System Operators (ISO) or control area Administrator determines requires immediate automatic or manual action to prevent or limit loss of transmission facilities or generators that could adversely affect the reliability of the power system and therefore call for maximum generation resources to operate in the affected area, or for the specific affected EGU to operate to avert loss of load.

*Useful thermal output* means the thermal energy made available for use in

any heating application (*e.g.*, steam delivered to an industrial process for a heating application, including thermal cooling applications) that is not used for electric generation, mechanical output at the affected EGU, to directly enhance the performance of the affected EGU (*e.g.*, economizer output is not useful thermal output, but thermal energy used to reduce fuel moisture is considered useful thermal output), or to supply energy to a pollution control device at the affected EGU. Useful thermal output for affected EGU(s) with no condensate return (or other thermal energy input to the affected EGU(s)) or where measuring the energy in the condensate (or other thermal energy input to the affected EGU(s)) would not meaningfully impact the emission rate calculation is measured against the energy in the thermal output at SATP conditions. Affected EGU(s) with meaningful energy in the condensate return (or other thermal energy input to the affected EGU) must measure the energy in the condensate and subtract that energy relative to SATP conditions from the measured thermal output.

*Valid data* means quality-assured data generated by continuous monitoring systems that are installed, operated, and maintained according to part 75 of this chapter. For CEMS, the initial certification requirements in § 75.20 of this chapter and appendix A to part 75 of this chapter must be met before quality-assured data are reported under this subpart; for on-going quality assurance, the daily, quarterly, and semiannual/annual test requirements in sections 2.1, 2.2, and 2.3 of appendix B to part 75 of this chapter must be met and the data validation criteria in sections 2.1.5, 2.2.3, and 2.3.2 of appendix B to part 75 of this chapter apply. For fuel flow meters, the initial certification requirements in section 2.1.5 of appendix D to part 75 of this chapter must be met before quality-assured data are reported under this subpart (except for qualifying commercial billing meters under section 2.1.4.2 of appendix D to part 75), and for on-going quality assurance, the provisions in section 2.1.6 of appendix D to part 75 apply (except for qualifying commercial billing meters).

*Violation* means a specified averaging period over which the CO<sub>2</sub> emissions rate is higher than the applicable emissions standard located in Table 1 or 2 of this subpart.

**TABLE 1 OF SUBPART TTTT OF PART 60—CO<sub>2</sub> EMISSION STANDARDS FOR AFFECTED STEAM GENERATING UNITS AND INTEGRATED GASIFICATION COMBINED CYCLE FACILITIES THAT COMMENCED CONSTRUCTION AFTER JANUARY 8, 2014 AND RECONSTRUCTION OR MODIFICATION AFTER JUNE 18, 2014**

[Note: Numerical values of 1,000 or greater have a minimum of 3 significant figures and numerical values of less than 1,000 have a minimum of 2 significant figures]

Affected EGU	CO <sub>2</sub> Emission standard
Newly constructed steam generating unit or integrated gasification combined cycle (IGCC).	640 kg CO <sub>2</sub> /MWh of gross energy output (1,400 lb CO <sub>2</sub> /MWh).
Reconstructed steam generating unit or IGCC that has base load rating of 2,100 GJ/h (2,000 MMBtu/h) or less.	910 kg of CO <sub>2</sub> per MWh of gross energy output (2,000 lb CO <sub>2</sub> /MWh).
Reconstructed steam generating unit or IGCC that has a base load rating greater than 2,100 GJ/h (2,000 MMBtu/h).	820 kg of CO <sub>2</sub> per MWh of gross energy output (1,800 lb CO <sub>2</sub> /MWh).
Modified steam generating unit or IGCC	A unit-specific emission limit determined by the unit's best historical annual CO <sub>2</sub> emission rate (from 2002 to the date of the modification); the emission limit will be no lower than: <ol style="list-style-type: none"> <li>1,800 lb CO<sub>2</sub>/MWh-gross for units with a base load rating greater than 2,000 MMBtu/h; or</li> <li>2,000 lb CO<sub>2</sub>/MWh-gross for units with a base load rating of 2,000 MMBtu/h or less.</li> </ol>

**TABLE 2 OF SUBPART TTTT OF PART 60—CO<sub>2</sub> EMISSION STANDARDS FOR AFFECTED STATIONARY COMBUSTION TURBINES THAT COMMENCED CONSTRUCTION AFTER JANUARY 8, 2014 AND RECONSTRUCTION AFTER JUNE 18, 2014 (NET ENERGY OUTPUT-BASED STANDARDS APPLICABLE AS APPROVED BY THE ADMINISTRATOR)**

[Note: Numerical values of 1,000 or greater have a minimum of 3 significant figures and numerical values of less than 1,000 have a minimum of 2 significant figures]

Affected EGU	CO <sub>2</sub> Emission standard
Newly constructed or reconstructed stationary combustion turbine that supplies more than its design efficiency or 50 percent, whichever is less, times its potential electric output as net-electric sales on both a 12-operating month and a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis.	450 kg of CO <sub>2</sub> per MWh of gross energy output (1,000 lb CO <sub>2</sub> /MWh); or 470 kilograms (kg) of CO <sub>2</sub> per megawatt-hour (MWh) of net energy output (1,030 lb/MWh).
Newly constructed or reconstructed stationary combustion turbine that supplies its design efficiency or 50 percent, whichever is less, times its potential electric output or less as net-electric sales on either a 12-operating month or a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis.	50 kg CO <sub>2</sub> per gigajoule (GJ) of heat input (120 lb CO <sub>2</sub> /MMBtu).
Newly constructed and reconstructed stationary combustion turbine that combusts 90% or less natural gas on a heat input basis on a 12-operating-month rolling average basis.	50 kg CO <sub>2</sub> /GJ of heat input (120 lb/MMBtu) to 69 kg CO <sub>2</sub> /GJ of heat input (160 lb/MMBtu) as determined by the procedures in § 60.5525.

**TABLE 3 TO SUBPART TTTT OF PART 60—APPLICABILITY OF SUBPART A OF PART 60 (GENERAL PROVISIONS) TO SUBPART TTTT**

General provisions citation	Subject of citation	Applies to subpart TTTT	Explanation
§ 60.1	Applicability	Yes.	Additional terms defined in § 60.5580.
§ 60.2	Definitions	Yes	
§ 60.3	Units and Abbreviations	Yes.	
§ 60.4	Address	Yes	Does not apply to information reported electronically through ECMPS. Duplicate submittals are not required.
§ 60.5	Determination of construction or modification	Yes.	
§ 60.6	Review of plans	Yes.	Only the requirements to submit the notifications in § 60.7(a)(1) and (3) and to keep records of malfunctions in § 60.7(b), if applicable.
§ 60.7	Notification and Recordkeeping	Yes	
§ 60.8	Performance tests	No.	
§ 60.9	Availability of Information	Yes.	
§ 60.10	State authority	Yes.	
§ 60.11	Compliance with standards and maintenance requirements.	No.	All monitoring is done according to part 75.
§ 60.12	Circumvention	Yes.	
§ 60.13	Monitoring requirements	No	

TABLE 3 TO SUBPART TTTT OF PART 60—APPLICABILITY OF SUBPART A OF PART 60 (GENERAL PROVISIONS) TO SUBPART TTTT—Continued

General provisions citation	Subject of citation	Applies to subpart TTTT	Explanation
§ 60.14	Modification	Yes (steam generating units and IGCC facilities). No (stationary combustion turbines).	
§ 60.15	Reconstruction	Yes.	
§ 60.16	Priority list	No.	
§ 60.17	Incorporations by reference	Yes.	
§ 60.18	General control device requirements	No.	
§ 60.19	General notification and reporting requirements	Yes	Does not apply to notifications under § 75.61 or to information reported through ECMPs.

**PART 70—STATE OPERATING PERMIT PROGRAMS**

■ 4. The authority citation for part 70 continues to read as follows:

**Authority:** 42 U.S.C. 7401, *et seq.*

■ 5. In § 70.2, the definition of “Regulated pollutant (for presumptive fee calculation)” is amended by:

■ a. Revising the introductory text;

■ b. Removing “or” from the end of paragraph (2);

■ c. Removing the period at the end of paragraph (3) and adding “; or” in its place; and

■ d. Adding paragraph (4).

The revision and additions read as follows:

**§ 70.2 Definitions.**

\* \* \* \* \*

*Regulated pollutant (for presumptive fee calculation)*, which is used only for purposes of § 70.9(b)(2), means any regulated air pollutant except the following:

\* \* \* \* \*

(4) Greenhouse gases.

\* \* \* \* \*

■ 6. Section 70.9 is amended by revising paragraph (b)(2)(i), and adding paragraph (b)(2)(v) to read as follows:

**§ 70.9 Fee determination and certification.**

\* \* \* \* \*

(b) \* \* \*

(2)(i) The Administrator will presume that the fee schedule meets the requirements of paragraph (b)(1) of this section if it would result in the collection and retention of an amount not less than \$25 per year [as adjusted pursuant to the criteria set forth in paragraph (b)(2)(iv) of this section] times the total tons of the actual emissions of each regulated pollutant (for presumptive fee calculation) emitted from part 70 sources and any

GHG cost adjustment required under paragraph (b)(2)(v) of this section.

\* \* \* \* \*

(v) *GHG cost adjustment*. The amount calculated in paragraph (b)(2)(i) of this section shall be increased by the GHG cost adjustment determined as follows: For each activity identified in the following table, multiply the number of activities performed by the permitting authority by the burden hours per activity, and then calculate a total number of burden hours for all activities. Next, multiply the burden hours by the average cost of staff time, including wages, employee benefits and overhead.

Activity	Burden hours per activity
GHG completeness determination (for initial permit or updated application) .....	43
GHG evaluation for a permit modification or related permit action .....	7
GHG evaluation at permit renewal .....	10

\* \* \* \* \*

**PART 71—FEDERAL OPERATING PERMIT PROGRAMS**

■ 7. The authority citation for part 71 continues to read as follows:

**Authority:** 42 U.S.C. 7401, *et seq.*

■ 8. In § 71.2, the definition of “Regulated pollutant (for fee calculation)” is amended by:

■ a. Removing “or” from the end of paragraph (2);

■ b. Removing the period at the end of paragraph (3) and adding “; or” in its place; and

■ b. Adding paragraph (4).

The revisions and additions read as follows:

**§ 71.2 Definitions.**

\* \* \* \* \*

*Regulated pollutant (for fee calculation)*, which is used only for purposes of § 71.9(c), means any “regulated air pollutant” except the following:

\* \* \* \* \*

(4) Greenhouse gases.

\* \* \* \* \*

■ 9. Section 71.9 is amended by:

■ a. Revising paragraphs (c)(1), (c)(2)(i), (c)(3), and (c)(4); and

■ b. Adding paragraph (c)(8).

The revisions and addition read as follows:

**§ 71.9 Permit fees.**

\* \* \* \* \*

(c) \* \* \*

(1) For part 71 programs that are administered by EPA, each part 71 source shall pay an annual fee which is the sum of:

(i) \$32 per ton (as adjusted pursuant to the criteria set forth in paragraph (n)(1) of this section) times the total tons of the actual emissions of each regulated pollutant (for fee calculation) emitted from the source, including fugitive emissions; and

(ii) Any GHG fee adjustment required under paragraph (c)(8) of this section.

(2) \* \* \*

(i) Where the EPA has not suspended its part 71 fee collection pursuant to paragraph (c)(2)(ii) of this section, the annual fee for each part 71 source shall be the sum of:

(A) \$24 per ton (as adjusted pursuant to the criteria set forth in paragraph (n)(1) of this section) times the total tons of the actual emissions of each regulated pollutant (for fee calculation) emitted from the source, including fugitive emissions; and

(B) Any GHG fee adjustment required under paragraph (c)(8) of this section.

\* \* \* \* \*

(3) For part 71 programs that are administered by EPA with contractor assistance, the per ton fee shall vary depending on the extent of contractor involvement and the cost to EPA of contractor assistance. The EPA shall establish a per ton fee that is based on the contractor costs for the specific part 71 program that is being administered, using the following formula:

$$\text{Cost per ton} = (E \times 32) + [(1 - E) \times \$C]$$

Where *E* represents EPA's proportion of total effort (expressed as a percentage of total effort) needed to administer the part 71 program, *1 - E* represents the contractor's effort, and *C* represents the contractor assistance cost on a per ton basis. *C* shall be computed by using the following formula:

$$C = [B + T + N] \text{ divided by } 12,300,000$$

Where *B* represents the base cost (contractor costs), where *T* represents travel costs, and where *N* represents nonpersonnel data management and tracking costs. In addition, each part 71 source shall pay a GHG fee adjustment for each activity as required under paragraph (c)(8) of this section.

(4) For programs that are delegated in part, the fee shall be computed using the following formula:

$$\text{Cost per ton} = (E \times 32) + (D \times 24) + [(1 - E - D) \times \$C]$$

Where *E* and *D* represent, respectively, the EPA and delegate

agency proportions of total effort (expressed as a percentage of total effort) needed to administer the part 71 program, *1 - E - D* represents the contractor's effort, and *C* represents the contractor assistance cost on a per ton basis. *C* shall be computed using the formula for contractor assistance cost found in paragraph (c)(3) of this section and shall be zero if contractor assistance is not utilized. In addition, each part 71 source shall pay a GHG fee adjustment for each activity as required under paragraph (c)(8) of this section.

\* \* \* \* \*

(8) *GHG fee adjustment.* The annual fee shall be increased by a GHG fee adjustment for any source that has initiated an activity listed in the following table since the fee was last paid. The GHG fee adjustment shall be equal to the set fee provided in the table for each activity that has been initiated since the fee was last paid:

Activity	Set fee
GHG completeness determination (for initial permit or updated application) .....	\$2,236
GHG evaluation for a permit modification or related permit action .....	364
GHG evaluation at permit renewal .....	520

\* \* \* \* \*

**PART 98—MANDATORY GREENHOUSE GAS REPORTING**

■ 10. The authority citation for part 98 is revised to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 11. Section 98.426 is amended by adding paragraph (h) to read as follows:

**§ 98.426 Data reporting requirements.**

\* \* \* \* \*

(h) If you capture a CO<sub>2</sub> stream from an electricity generating unit that is subject to subpart D of this part and transfer CO<sub>2</sub> to any facilities that are subject to subpart RR of this part, you must:

(1) Report the facility identification number associated with the annual GHG report for the subpart D facility;

(2) Report each facility identification number associated with the annual GHG reports for each subpart RR facility to which CO<sub>2</sub> is transferred; and

(3) Report the annual quantity of CO<sub>2</sub> in metric tons that is transferred to each subpart RR facility.

■ 12. Section 98.427 is amended by adding paragraph (d) to read as follows:

**§ 98.427 Records that must be retained.**

\* \* \* \* \*

(d) Facilities subject to § 98.426(h) must retain records of CO<sub>2</sub> in metric tons that is transferred to each subpart RR facility.

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