BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

PETITION OF MIDWEST GENERATION, LLC, WAUKEGAN GENERATING STATION FOR AN ADJUSTED STANDARD FROM 35 ILL.ADM.CODE 225.230.

AS 07-03 (Adjusted Standard – Air)

NOTICE OF FILING

To:

Dorothy Gunn, Clerk Illinois Pollution Control Board James R. Thompson Center Suite 11-500 100 West Randolph Chicago, Illinois 60601 Persons included on the **ATTACHED SERVICE LIST**

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PLEASE TAKE NOTICE that we have today filed with the Office of the Clerk of the Pollution Control Board APPEARANCES OF KATHLEEN C. BASSI, STEPHEN J. BONEBRAKE, and SHELDON A. ZABEL ON BEHALF OF MIDWEST GENERATION, LLC, and PETITION FOR ADJUSTED STANDARD, copies of which are herewith served upon you.

Kathleen C. Bassi

Dated: January 10, 2007

Sheldon A. Zabel Kathleen C. Bassi Stephen J. Bonebrake SCHIFF HARDIN, LLP 6600 Sears Tower 233 South Wacker Drive Chicago, Illinois 60606 312-258-5500

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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IN THE MATTER OF:

PETITION OF MIDWEST GENERATION, LLC, WAUKEGAN GENERATING STATION FOR AN ADJUSTED STANDARD FROM 35 ILL.ADM.CODE 225.230. AS 07-03 (Adjusted Standard – Air)

APPEARANCE

I, KATHLEEN C. BASSI, hereby file my appearance in this matter on behalf of

MIDWEST GENERATION, LLC, WILL COUNTY GENERATING STATION.

Respectfully submitted,

/s/ Kathleen C. Bassi

Kathleen C. Bassi

Dated: January 10, 2007

Sheldon A. Zabel Kathleen C. Bassi Stephen J. Bonebrake Joshua R. More Glenna Gilbert SCHIFF HARDIN, LLP 6600 Sears Tower 233 South Wacker Drive Chicago, Illinois 60606 312-258-5500

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PETITION OF MIDWEST GENERATION, LLC, WILL COUNTY GENERATING STATION FOR AN ADJUSTED STANDARD FROM 35 ILL.ADM.CODE 225.230. AS 07-03 (Adjusted Standard – Air)

APPEARANCE

I, SHELDON A. ZABEL, hereby file my appearance in this matter on behalf of

MIDWEST GENERATION, LLC, WILL COUNTY GENERATING STATION.

Respectfully submitted,

/s/ Sheldon A. Zabel

Sheldon A. Zabel

Dated: January 10, 2007

Sheldon A. Zabel Kathleen C. Bassi Stephen J. Bonebrake Joshua R. More Glenna Gilbert SCHIFF HARDIN, LLP 6600 Sears Tower 233 South Wacker Drive Chicago, Illinois 60606 312-258-5500

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IN THE MATTER OF:

PETITION OF MIDWEST GENERATION, LLC, WILL COUNTY GENERATING STATION FOR AN ADJUSTED STANDARD FROM 35 ILL.ADM.CODE 225.230. AS 07-03 (Adjusted Standard – Air)

APPEARANCE

I, STEPHEN J. BONEBRAKE, hereby file my appearance in this matter on behalf of

MIDWEST GENERATION, LLC, WILL COUNTY GENERATING STATION.

Respectfully submitted,

/s/ Stephen J. Bonebrake

Stephen J. Bonebrake

Dated: January 10, 2007

Sheldon A. Zabel Kathleen C. Bassi Stephen J. Bonebrake Joshua R. More Glenna Gilbert SCHIFF HARDIN, LLP 6600 Sears Tower 233 South Wacker Drive Chicago, Illinois 60606 312-258-5500

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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IN THE MATTER OF:

PETITION OF MIDWEST GENERATION, LLC, WAUKEGAN GENERATING STATION FOR AN ADJUSTED STANDARD FROM 35 ILL.ADM.CODE 225.230.

AS 07-03 (Adjusted Standard – Air)

PETITION FOR ADJUSTED STANDARD

NOW COMES MIDWEST GENERATION, LLC, WAUKEGAN GENERATING STATION, I.D. No. 097190AAC, by and through its attorneys, SCHIFF HARDIN LLP, and, pursuant to Section 28.1(f) of the Environmental Protection Act ("Act"), 415 ILCS 5/28.1(f), and Section 104.402 of the Board's regulations, 35 Ill.Adm.Code § 104.402, petitions the Board for an adjusted standard from the requirements of the mercury rule, 35 Ill.Adm.Code § 225.230, adopted by the Board on December 21, 2006, in Docket R06-25 (the "mercury rule"). The mercury rule requires, for the first time, control of mercury emissions by large coal-fired electric generating plants. As this Petition is filed within 20 days of the Board's final order in R06-25, pursuant to Section 28.1(f) of the Act, the Waukegan Generating Station ("Waukegan") is exempt from the requirements of the mercury rule for such period of time as specified in Section 28.1(f). Midwest Generation and the Illinois Environmental Protection Agency ("Agency") jointly filed comments in Docket R06-26 proposing the addition of Subpart F to 35 Ill.Adm.Code Part 225. Subpart F provides for an alternative compliance route for Midwest Generation. However, the Board has not yet acted upon Subpart F and cannot do so within the time necessary for the filing of this Petition. This Petition seeks relief for the timing of compliance of the hotside electrostatic precipitator ("HS ESP") at the Waukegan Generating Station, pending Board

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action on Subpart F. Therefore, in support of its Petition for Adjusted Standard, Petitioner states as follows:

A. <u>Standard from Which an Adjusted Standard Is Sought</u> (§ 104.406(a))

The Board adopted the mercury rule on December 21, 2006. That rule became effective December 21, 2006. 31 Ill.Reg. 129 (January 5, 2007). The mercury standard at 35 Ill.Adm.Code § 225.230 from which Petitioner seeks relief is 0.0080 lb mercury/GWh gross electrical output or 90 % reduction of input mercury. However, Petitioner seeks relief from the emissions standard only until July 1, 2011, for only Unit 7.

B. <u>Implementation of Clean Air Act Requirement</u> (§ 104.406(b))

The Board promulgated the mercury rule in response to a requirement of Section 111(d) of the Clean Air Act, 42 U.S.C. § 7411(d), under which the U.S. Environmental Protection Agency ("USEPA") adopted the Clean Air Mercury Rule at 70 Fed.Reg. 28605 (May 18, 2005).

C. <u>Level of Justification</u> (§ 104.406(c))

The mercury rule does not specify a level of justification necessary for the Board to grant an adjusted standard from that rule.

D. <u>Description of the Nature of Petitioner's Activity</u> (§ 104.406(d))

The Waukegan Generating Station is located at 529 East 135th, Romeoville, Waukegan, Illinois 60446. Though not pertinent to the mercury rule, Waukegan is located within the Chicago ozone and PM2.5¹ nonattainment areas. Any area affected by Waukegan's activities in question is not in the immediate vicinity of the plant but is, rather, downwind hundreds of miles from the plant. As a large coal-fired power generating plant, emissions from Waukegan exit

¹ Particulate matter 2.5 microns in aerodynamic diameter.

very tall stacks and have very high plume rise. As a result, Waukegan's emissions have more significance as a regional concern than as a local concern.

The Waukegan Station employs 183 people. The first boiler at the plant was constructed in 1955, and the Station currently has four electric generating units ("EGUs").

The principal emissions from the Waukegan Station are nitrogen oxides ("NOx"), sulfur dioxide ("SO₂"), and particulate matter ("PM"). NOx is controlled through the use of overfire air equipment on all four of the boilers and low NOx burners on two of the boilers. SO₂ is controlled through the use of low sulfur Powder River Basin coal. PM is controlled through the use of electrostatic precipitators ("ESPs") on the boilers and through enclosures, covers, dust suppressant application, dust collection devices, and good management practices on station activities supporting boiler operation, such as the coal pile and coal handling operations. In 2006, the Waukegan Station emitted 4,320 tons of NOx, 11,816 tons of SO₂, 736 tons of PM, and an estimated 216 pounds of mercury.

E. <u>Description of the Efforts and Costs Necessary to Comply with the Mercury Rule</u> (§ 104.406(e))

The Waukegan Station cannot comply with the mercury rule as adopted. The mercury rule assumes that an EGU can comply with the rule with the addition of halogenated activated carbon ("HCI") injected into the exhaust stream prior to the ESP. Based upon that assumption, the mercury rule further assumes that all regulated sources can install and operate the necessary control technology and thereby achieve compliance by the 2009 compliance date. However, tests have shown and the Agency and Board have acknowledged that certain ESP configurations, namely HS ESPs, do not perform to the requisite standard. R06-25 Springfield Transcript ("R06-25 S Tr.), June 21, 2006, p.m., pp. 103-104; R06-25, Board Order, Second Notice (November 2, 2006), pp. 24-25. Instead, to achieve a 90% reduction in mercury emissions,

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EGUs with HS ESPs require, at a minimum, either the installation of a baghouse prior to the stack or the conversion of the HS ESP to a cold-side ESP ("CS ESP"). R06-25 S Tr., June 21, 2006, p.m., pp. 113-114. As a result, the costs of compliance for EGUs with HS ESPs are significantly higher than the cost of merely adding HCI. Additionally, the time necessary for an EGU with a HS ESP to be able to comply is significantly longer than that required for units that merely need to add HCI because EGUs with HS ESPs require significant additional controls to comply. There is insufficient time for the additional required mercury controls to be designed, acquired, installed, debugged, and placed into operation at the station prior to the compliance date of the rule.

The Agency estimated that the cost of compliance for an EGU with a HS ESP is \$9-21 million. R06-25 S Tr., June 21, 2006, p.m., pp. 24-25, 103. However, William DePriest, Senior Vice-President at Sargent & Lundy, testified in the mercury hearings, that the cost of a baghouse ranges from \$42-92 million depending upon complexity and the time for project development, installation, and shake-down is approximately 36 months. R06-25 Ex. 115, pp. 20, 22; *generally see* R06-25 Chicago Transcript ("R06-25 C Tr."), August 18, 2006, a.m., pp. 1064, 1071-1072, 1226-1227.

Subsequent to the mercury hearings, Midwest Generation contracted with Shaw Stone & Webster to update Sargent & Lundy's projections regarding the installation cost for baghouses. Shaw Stone & Webster estimated that the costs had increased approximately 92%, or approximately \$121 million. Additionally, Midwest Generation has found, based upon the availability of resources, that the time for project development through shake-down has increased to a minimum of 38 months.

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Midwest Generation also explored converting the HS ESPs to CS ESPs. The cost of conversion to a CS ESP is \$18-25 million but requires a 16-20 week outage, resulting in lost sales opportunities. This period is significantly longer than any current planned outages. The outage generally necessary for the installation of a baghouse, by comparison, is only approximately 25 days.

Though the cost of conversion of the HS ESP to a CS ESP is less than the cost of the installation of a baghouse, excluding the value of lost revenue, the reductions of SO_2 and PM that would result through the baghouse make that option more attractive to Midwest Generation. Moreover, the installation of the baghouse will result in greater benefit to the environment because of the reductions of SO_2 and PM in addition to the reductions in mercury emissions.

F. Description of Proposed Adjusted Standard (§ 104.406(f))

Midwest Generation proposes that the requested adjusted standard provide a longer period of time for the Waukegan Station to comply with the mercury rule adopted by the Board in R06-25, with respect to Unit 7, as set forth in the following language:

- a. Midwest Generation must install and properly operate and maintain ACI equipment on Waukegan Unit 7 by July 1, 2009, consistent with the requirements of 35 Ill.Adm.Code Part 225, Subpart B.
- b. Waukegan Unit 7 shall not be subject to the requirements of 35 Ill.Adm.Code Part 225, Subpart B before July 1, 2011.
- c. Beginning on July 1, 2011, and thereafter, Waukegan Unit 7 is subject to the provisions of 35 Ill.Adm.Code Part 225, Subpart B, as applicable on that date.
- d. All other units at the Waukegan Generating Station are subject to the provisions of 35 Ill.Adm.Code Part 225, Subpart B.
- e. If Midwest Generation chooses to demonstrate compliance with the mercury rule pursuant to 35 Ill.Adm.Code § 225.230(d), Unit 7 shall not be included in the source-wide averaging before July 1, 2011, unless Midwest Generation elects to include Unit 7 prior to that date. If Midwest Generation chooses to include Unit 7

in the source-wide compliance averaging prior to July 1, 2011, it must provide the Agency with 30 days' notice of its intent to include Unit 7.

f. If Midwest Generation chooses to demonstrate compliance at its other generating stations pursuant to 35 Ill.Adm.Code § 225.232, system-wide averaging provided through December 31, 2013, Midwest Generation may choose to include the Waukegan Unit 7 in the averaging demonstration in the manner set forth in subsection (e) above, or it may choose to exclude the Waukegan Unit 7 from the averaging demonstration. Midwest Generation must provide the Agency with 30 days' notice of its intention to include or exclude the Waukegan Unit 7 from the averaging demonstration pursuant to 35 Ill.Adm.Code § 225.232.

G. <u>Description of the Impact of the Adjusted Standard on the Environment</u> (§ 104.406(g))

No impact to the environment is expected if the adjusted standard is granted. The Agency produced no evidence in the record in the mercury rulemaking, R06-25, that indicated that emissions of mercury from the Waukegan Station impacted local health or the local environment. There are innumerable natural and manmade sources of mercury. R06-25, Board Order, Second Notice (November 2, 2006), pp. 6-7. Mercury emissions from EGUs in the United States account for only about 1% of worldwide mercury emissions (R06-25 Ex. 126, p. 3; R06-25 C Tr., August 21, 2006, p.m., p. 1488), and mercury emissions from the Waukegan Station are a minute fraction of that amount. As noted above, the Waukegan Station is estimated to have emitted about 216 pounds of mercury in 2006, and that is a reasonable estimate of future mercury emissions until additional mercury controls are installed. The adjusted standard sought herein would only temporarily defer applicability of the mercury standard under the rule to provide sufficient time for installation of controls. In addition, there is no direct, measurable correlation between mercury emission reductions and decreases in fish tissue mercury levels, and consumption of fish is the primary pathway of concern underlying the mercury rule. Generally see R06-25 Exs. 126, 129, and 130. There is no evidence of a link between mercury emissions from the Waukegan Station and any aquatic impact. The temporary and relatively minute

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increase in mercury emissions attributable to the adjusted standard sought herein would be inconsequential, and no environmental harm would result from the granting of this adjusted standard.

Further, the proposed adjusted standard language requires Midwest Generation to implement mercury reduction measures on the EGUs at the Waukegan Station by July 1, 2009. Therefore, these units, with the exception of Unit 7, may achieve a 90% removal from input mercury, according to the Agency's position in the mercury rulemaking hearings. Some lesser level of reduction would likely occur at Unit 7. Consequently, the amount of mercury emitted after July 1, 2009, from the Waukegan Station would be at a rate less than the current emissions rate, further benefiting the environment prior to the full compliance date required by the adjusted standard.

H. Justification for the Adjusted Standard (§ 104.406(h))

The Agency's basic assumption during the mercury rulemaking was that installation of HCI would result in a 90% removal of mercury as measured from input coal. However, the Agency acknowledged that testing of HCI on various boiler and control equipment configurations indicates that boilers equipped with HS ESPs have not, in any of the testing of HCI, achieved a 90% reduction in mercury emissions without the addition of a baghouse. R06-25 S Tr., June 21, 2006, p.m., pp. 106-107. It is not possible for Midwest Generation to design, acquire, install, debug, and operate a baghouse at the Waukegan Station by July 1, 2009, the compliance date for the mercury rule. R06-25 C Tr., August 18, 2006, a.m., pp. 1226-1227. Therefore, Midwest Generation requires additional time to comply with the rule. Failure to obtain additional time could result in unit shutdown with attendant loss of electricity generation and costs, including possible impact on the transmission grid and loss of jobs. Midwest

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Generation is required to comply with the mercury rule with respect to four of its six other stations² as well, which when coupled with the required compliance activities at Waukegan, including the significant costs of a baghouse, will strain Midwest Generation's resources. Moreover, the additional environmental benefit of removal of SO₂ and PM emissions that are inherent in the type of baghouse necessary for this application justify the additional time necessary for Midwest Generation to comply with the mercury rule.

The Agency and Midwest Generation filed Joint Comments in Docket R06-26, the CAIR rulemaking, requesting that the Board adopt Part 225, Subpart F, which establishes a compliance date of January 1, 2016, for Waukegan Unit 7. This is additional, tacit acknowledgement on the part of the Agency that Waukegan Unit 7 cannot comply with the requirements of the mercury rule by July 1, 2009. Further, as discussed above, the requested adjusted standard would not result in environmental harm

I. <u>Consistent with Federal Law</u> (§ 104.406(i) and § 28.1(c)(4) of the Act)

The Board may grant the requested adjusted standard consistent with federal law. Pursuant to the federal Clean Air Mercury Rule ("CAMR"), 40 CFR § 60.24, the Agency is required to submit a state program that complies with the requirements of Section 111(d) of the Clean Air Act, 42 U.S.C. 7411(d). The CAMR requires that Illinois comply with a cap on emissions of mercury from coal-fired power plants in a manner determined by the State. Based upon information provided by USEPA, the estimated regional reductions that would be achieved in Phase 1 (2010-2017) of the CAMR were 47% from a 1999 baseline. *Argus Air Daily* (March 16, 2005), p. 4 of 7. The 90% reduction required by the Illinois mercury rule far exceeds the

² Note that Midwest Generation is seeking parallel adjusted standard for its HS ESP at the Will County Generating Station in Docket AS 07-04.

percentage reduction that USEPA anticipated, even though the Waukegan Station may not achieve the 90% reduction by 2010, the compliance date for the CAMR. Jim Ross, Manager of the Division of Air Pollution Control at the Agency, testified that the Agency believes that there is sufficient margin under the cap to accommodate the less-than-90% reduction that the Waukegan Station will achieve. R06-25, Board Order, Second Notice (November 2, 2006), p. 89. Therefore, the adjusted standard is consistent with federal law.

J. <u>Request for Hearing</u> (§ 104.406(j))

Because the Agency must submit the adjusted standard, if granted, to USEPA to become part of the State's implementation program for the CAMR pursuant to Section 111(d) of the Clean Air Act, there must be a hearing on this matter. Midwest Generation requests that the Board schedule and hold a hearing on this petition for adjusted standard.

K. <u>Supporting Authorities</u> (§ 104.406(k))

Midwest Generation has relied upon Clean Air Act Section 111(d), the federal CAMR, and *Argus Air Daily*, in addition to the R06-25 record, in the development of this Petition for Adjusted Standard. Copies of the appropriate portions of the Clean Air Act, the Code of Federal Regulations, and the March 16, 2005, *Argus Air Daily* are attached hereto for the Board's reference. Although Midwest Generation has relied upon the written testimony and transcript developed in Docket R06-25, it has not provided additional copies of that written testimony or transcript, as the written testimony and transcript are already within the Board's possession in that Docket and are therefore available to the Board, the Agency, and the public.

L. <u>Substantially and Significantly Different Factors Relating to Petitioner</u> (§ 28.1(c)(1) of the Act)

Waukegan Station is substantially and significantly different from other EGUs subject to the mercury rule because of the HS ESP on Unit 7. The Agency and the Board, as discussed above, have acknowledged that an EGU with a HS ESP is a substantially and significantly different boiler and pollution control equipment configuration that does not lend itself to compliance with the mercury rule by the installation of HCI alone. The installation of the additional equipment necessary for Waukegan Unit 7 to comply will take a significantly longer period of time and impose significantly more expense than anticipated by the Agency in the development of the mercury proposal for the CS ESPs in the state.

M. <u>Adjusted Standard Justified by the Substantially and Significantly Different Factors</u> (§ 28.1(c)(2) of the Act)

Both the Agency at hearing and the Board acknowledged that sources with HS ESPs could seek relief through a variance or an adjusted standard. As discussed further above, units with HS ESPs cannot comply by the July 1, 2009, compliance date for the mercury rule. Failure to extend that date for EGUs with HS ESPs could result in unit shutdowns with attendant loss of electricity generation and costs, including possible impacts on the transmission grid and loss of jobs. An adjusted standard providing for a different compliance date or a different removal standard is justified.

N. <u>Environmental or Health Effects Not Significantly More Adverse Than Rule</u> (§ 28.1(c)(3) of the Act)

Granting the Waukegan Station this requested adjusted standard will not result in environmental or health effects significantly more adverse than the mercury rule. Waukegan is only one of 21 generating stations subject to the rule. The Waukegan Station represents only 7% of the total megawatts in the state. Illinois EGUs as a whole contribute only a small portion of

the mercury emissions attributable to EGUs in the United States that are subject to CAMR, and as discussed above, the total mercury emissions of all of these EGUs is a minute fraction of the total worldwide mercury emissions that impact or may impact Illinois. Further, there is no direct and measurable correlation between mercury emission reductions and reductions of fish tissue mercury levels, as discussed above. In addition, Midwest Generation proposes to mercury reduction measures at all units at the Station by July 1, 2009, as discussed above. Accordingly, the requested temporary deferral of the mercury rule's standard is inconsequential and will not cause any adverse environmental impact.

WHEREFORE, for the reasons set forth herein, Midwest Generation, LLC, requests that the Board grant the adjusted standard from 35 Ill.Adm.Code 225, Subpart B sought herein for the Waukegan Generating Station.

Respectfully submitted,

MIDWEST GENERATION, LLC, WAUKEGAN GENERATING STATION

by:

One of Their Attorneys

Dated: January 10, 2007

Sheldon A. Zabel Kathleen C. Bassi Stephen J. Bonebrake SCHIFF HARDIN, LLP 6600 Sears Tower 233 South Wacker Drive Chicago, Illinois 60606 312-258-5500 Fax: 312-258-5600

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42 U.S.C. § 7411(d)

42 § 7411 CAA § 111

FEDERAL ENVIRONMENTAL LAWS

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

(2) The Administrator shall have the same authority—

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

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

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors,

Complete Annotation Materials, see Title 42 U.S.C.A.

remaining useful lives of the sources in the category of sources to which such standard applies.

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(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 **r** gory.

(2) Upon applic showing that any (is not included in t this section contr which may reaso public health or category is not sources), the Adm tions to specify si

 (3) Upon applic showing that the properly the criter subsection (f)(2) shall revise the lis section to apply pr
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(5) Unless later trator are otherw Administrator shi lowing the date Governor of a Sta

(A) find that the requisite sh

(B) grant su required under(6) Before taki(f) of this section trator shall provi hearing.

(h) Design, equ tional star tion

(1) For purpos of the Administra enforce a standa

40 CFR § 60.24

§60.24

any plan revision necessary to meet the requirements of this subpart.

(b) If no designated facility is located within a State, the State shall submit a letter of certification to that effect to the Administrator within the time specified in paragraph (a) of this section. Such certification shall exempt the State from the requirements of this subpart for that designated pollutant.

(c)(1) Except as provided in paragraphs (c)(2) and (c)(3) of this section, the State shall, prior to the adoption of any plan or revision thereof, conduct one or more public hearings within the State on such plan or plan revision.

(2) No hearing shall be required for any change to an increment of progress in an approved compliance schedule unless the change is likely to cause the facility to be unable to comply with the final compliance date in the schedule.

(3) No hearing shall be required on an emission standard in effect prior to the effective date of this subpart if it was adopted after a public hearing and is at least as stringent as the corresponding emission guideline specified in the applicable guideline document published under 60.22(a).

(d) Any hearing required by paragraph (c) of this section shall be held only after reasonable notice. Notice shall be given at least 30 days prior to the date of such hearing and shall include:

(1) Notification to the public by prominently advertising the date, time, and place of such hearing in each region affected;

(2) Availability, at the time of public announcement, of each proposed plan or revision thereof for public inspection in at least one location in each region to which it will apply;

(3) Notification to the Administrator;

(4) Notification to each local air pollution control agency in each region to which the plan or revision will apply; and

(5) In the case of an interstate region, notification to any other State included in the region.

(e) The State shall prepare and retain, for a minimum of 2 years, a record of each hearing for inspection by any interested party. The record shall contain, as a minimum, a list of

40 CFR Ch. I (7-1-05 Edition)

witnesses together with the text of each presentation.

(f) The State shall submit with the plan or revision:

(1) Certification that each hearing required by paragraph (c) of this section was held in accordance with the notice required by paragraph (d) of this section; and

(2) A list of witnesses and their organizational affiliations, if any, appearing at the hearing and a brief written summary of each presentation or written submission.

(g) Upon written application by a State agency (through the appropriate Regional Office), the Administrator may approve State procedures designed to insure public participation in the matters for which hearings are required and public notification of the opportunity to participate if, in the judgment of the Administrator, the procedures, although different from the requirements of this subpart, in fact provide for adequate notice to and participation of the public. The Administrator may impose such conditions on his approval as he deems necessary. Procedures approved under this section shall be deemed to satisfy the requirements of this subpart regarding procedures for public hearings.

[40 FR 53346, Nov. 17, 1975, as amended at 60 FR 65414, Dec. 19, 1995]

§ 60.24 Emission standards and compliance schedules.

(a) Each plan shall include emission standards and compliance schedules.

(b)(1) Emission standards shall prescribe allowable rates of emissions except when it is clearly impracticable. Such cases will be identified in the guideline documents issued under §60.22. Where emission standards prescribing equipment specifications are established, the plan shall, to the degree possible, set forth the emission reductions achievable by implementation of such specifications, and may permit compliance by the use of equipment determined by the State to be equivalent to that prescribed.

(2) Test methods and procedures for determining compliance with the emission standards shall be specified in the plan. Methods other than those specified in appendix A to this part may be

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specifi equiva defined (3) E all de State. standa tions r enforce (c) E (f) of t] trator ignated tribute health. less str emissio part C ance sh as prac complia C of this (d) WF termine may endange that adv have nc may bal compliai tion pro line docu public cc standard variance shall be in §60.22 sented a ducted ur (e)(1) A tending r date requ must incl ments of ance for category specified crements where pra progress s include si progress a close and progress to (2) A pla ance sched categories lated afte: schedule s]

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40 CFR Ch. I (7-1-05 Edition)

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2) A list of witnesses and their orgazational affiliations, if any, appearg at the hearing and a brief written mmary of each presentation or writn submission.

g) Upon written application by a ate agency (through the appropriate gional Office), the Administrator ty approve State procedures designed

insure public participation in the atters for which hearings are reired and public notification of the portunity to participate if, in the igment of the Administrator, the occdures, although different from the uirements of this subpart, in fact ovide for adequate notice to and paripation of the public. The Adminisitor may impose such conditions on approval as he deems necessary. occdures approved under this section all be deemed to satisfy the requirents of this subpart regarding proceres for public hearings.

FR 53346, Nov. 17, 1975, as amended at 60 65414, Dec. 19, 1995]

).24 Emission standards and compliance schedules.

a) Each plan shall include emission ndards and compliance schedules.

b)(1) Emission standards shall preibe allowable rates of emissions exit when it is clearly impracticable. the cases will be identified in the deline documents issued under .22. Where emission standards preibing equipment specifications are ablished, the plan shall, to the dee possible, set forth the emission retions achievable by implementation such specifications, and may permit apliance by the use of equipment demined by the State to be equivalent that prescribed.

3) Test methods and procedures for ermining compliance with the emisa standards shall be specified in the n. Methods other than those specil in appendix A to this part may be

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specified in the plan if shown to be equivalent or alternative methods as defined in $\S60.2$ (t) and (u).

(3) Emission standards shall apply to all designated facilities within the State. A plan may contain emission standards adopted by local jurisdictions provided that the standards are enforceable by the State.

(c) Except as provided in paragraph (f) of this section, where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public health, emission standards shall be no less stringent than the corresponding emission guideline(s) specified in subpart C of this part, and final compliance shall be required as expeditiously as practicable but no later than the compliance times specified in subpart C of this part.

(d) Where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public welfare but that adverse effects on public health have not been demonstrated. States may balance the emission guidelines, compliance times, and other information provided in the applicable guideline document against other factors of public concern in establishing emission standards, compliance schedules, and variances. Appropriate consideration shall be given to the factors specified in \$60.22(b) and to information presented at the public hearing(s) conducted under §60.23(c).

(e)(1) Any compliance schedule extending more than 12 months from the date required for submittal of the plan must include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities. Unless otherwise specified in the applicable subpart, increments of progress must include, where practicable, each increment of progress specified in §60.21(h) and must include such additional increments of progress as may be necessary to permit close and effective supervision of progress toward final compliance.

(2) A plan may provide that compliance schedules for individual sources or categories of sources will be formulated after plan submittal. Any such schedule shall be the subject of a public hearing held according to 60.23 and shall be submitted to the Administrator within 60 days after the date of adoption of the schedule but in no case later than the date prescribed for submittal of the first semiannual report required by 60.25(e).

(f) Unless otherwise specified in the applicable subpart on a case-by-case basis for particular designated facilities or classes of facilities, States may provide for the application of less stringent emissions standards or longer compliance schedules than those otherwise required by paragraph (c) of this section, provided that the State demonstrates with respect to each such facility (or class of facilities):

(1) Unreasonable cost of control resulting from plant age, location, or basic process design;

(2) Physical impossibility of installing necessary control equipment; or

(3) Other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time significantly more reasonable.

(g) Nothing in this subpart shall be construed to preclude any State or political subdivision thereof from adopting or enforcing (1) emission standards more stringent than emission guidelines specified in subpart C of this part or in applicable guideline documents or (2) compliance schedules requiring final compliance at earlier times than those specified in subpart C or in applicable guideline documents.

[40 FR 53346, Nov. 17, 1975, as amended at 60 FR 65414, Dec. 19, 1995; 65 FR 76384, Dec. 6, 2000]

EFFECTIVE DATE NOTE: At 70 FR 28649, May 18, 2005, 60.24 was amended by revising paragraph (b)(1); and adding paragraph (h), effective July 18, 2005. For the convenience of the user, the revised and added text is set forth as follows:

§60.24 Emission standards and compliance schedules.

* * * *

(b)(1) Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. * * *

* * * * *

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(h) Each of the States identified in paragraph (h)(1) of this section shall be subject to the requirements of paragraphs (h)(2) through (7) of this section.

(1) Alaska, Alabama, Arkansas, Arizona, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon. Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Vir-ginia, Wisconsin, Wyoming, and the District of Columbia shall each, and, if approved for treatment as a State under part 49 of this chapter, the Navajo Nation and the Ute Indian Tribe may each, submit a State plan meeting the requirements of paragraphs (h)(2) through (7) of this section and the other applicable requirements for a State plan under this subpart.

(2) The State's State plan under paragraph (h)(1) of this section must be submitted to the Administrator by no later than November 17, 2006. The State shall deliver five copies of the State plan to the appropriate Regional Office, with a letter giving notice of such action.

(3) The State's State plan under paragraph (h)(1) of this section shall contain emission standards and compliance schedules and demonstrate that they will result in compliance with the State's annual electrical generating unit (EGU) mercury (Hg) budget for the appropriate periods. The amount of the annual EGU Hg budget, in tons of Hg per year, shall be as follows, for the indicated State for the indicated period:

State	Annual EGU (ton	Hg budget s)
ਹਾਕਦ	2010-2017	2018 and thereafter
Alaska	0.005	0.002
Alabama	1.289	0.509
Arkansas	0.516	0.204
Arizona	0.454	0.179
California	0.041	0.016
Colorado	0.706	0.279
Connecticut	0.053	0.021
Delaware	0.072	0.028
District of Columbia	0	0
Florida	1.233	0.487
Georgia	1.227	0.484
Hawaii	0.024	0.009
Idaho	0	0
iowa	0.727	0.287
Illinois	1.594	0.629
Indiana	2.098	0.828
Kansas	0.723	0.285
Kentucky	1.525	0.602
Louisiana	0.601	0.237
Massachusetts	0.172	0.068
Maryland	0.49	0.193
Maine	0.001	0.001

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State	Annual EGU (ton	Hg budget s)
Jiale	20102017	2018 and thereafter
Michigan	1.303	0.514
Minnesota	0.695	0.274
Missouri	1.393	0.55
Mississippi	0.291	0.115
Montana	0.378	0.149
North Carolina	1.133	0.447
North Dakota	1.564	0.617
Nebraska	0.421	0.166
New Hampshire	0.063	0.025
New Jersey	0.153	0.06
New Mexico	0.299	0.118
Nevada	0.285	0.112
New York	0.393	0.155
Ohio	2.056	0.812
Oklahoma	0.721	0.285
Oregon	0.076	0.03
Pennsylvania	1.78	0.702
Rhode Island	0	0
South Carolina	0.58	0.229
South Dakota	0.072	0.029
Tennessee	0.944	0.373
Texas	4.657	1.838
Utah	0.506	0.2
Virginia	0.592	0.234
Vermont	0	0
Washington	0.198	0.078
Wisconsin	0.89	0.351
West Virginia	1.394	0.55
Wyoming	0.952	0.376
Navajo Nation Indian country	0.601	0.237
Ute Indian Tribe Indian country	0.06	0.024

(4) Each State plan under paragraph (h)(1) of this section shall require EGUs to comply with the monitoring, record keeping, and reporting provisions of part 75 of this chapter with regard to Hg mass emissions.

(5) In addition to meeting the requirements of 60.26, each State plan under paragraph (h)(1) of this section must show that the State has legal authority to:

(i) Adopt emissions standards and compliance schedules necessary for attainment and maintenance of the State's relevant annual EGU Hg budget under paragraph (h)(3) of this section; and

(ii) Require owners or operators of EGUs in the State to meet the monitoring, record keeping, and reporting requirements described in paragraph (h)(4) of this section.

(6)(i) Notwithstanding the provisions of paragraphs (h)(3) and (5)(i) of this section, if a State adopts regulations substantively identical to subpart HHHH of this part (Hg Budget Trading Program), incorporates such subpart by reference into its regulations, or adopts regulations that differ substantively from such subpart only as set forth in paragraph (h)(6)(ii) of this section, then such allowance system in the State's State plan is automatically approved as meeting the requirements of paragraph (h)(3) of this section, provided that the State demonstrates that it has the legal authority to take such action and to implement its responsibilities under such regulations.

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(ii) If a St that differs HHHH of th emissions tr forth in para (A) The St location pro 60.4142 and 1 ology for all-(B) The S graph (h)(6)(allow the St: a year in exc annual EGU paragraph (h (C) The St graph (h)(6)(quire that, f before Janua mine, and no unit's alloca ber 31, 2006 f tober 31, 200 thereafter fo of the notific (D) The St graph (h)(6)(quire that, f on or after J termine, and each unit's : October 31 o lowances are

(7) If a Sta that differs HHHH of this paragraph (h allowance sy proved as se (ii) of this s the Adminis cordance wit graphs (h)(2)the other a State plan u: the Hg allow ance system under paragr state that s qualify as H ance systen (h)(6)(i) or (ii (8) The ter

shall have th Administrat the United S Agency or th ized represen Allocate or

Hg allowanc amount of Hg ited to a sour Boiler mea. fuel-fired con heat and to water, steam 40 CFR Ch. I (7-1-05 Edition)

Ctate	Annual EGU (torn	Hg budget s)
	2010-2017	2018 and thereafter
зл	1.303	0.514
iota	0.695	0.274
ffi	1.393	0.55
NDDI	0.291	0.115
18	0.378	0.149
Carolina	1.133	0.447
Dakota	1.564	0.617
ika	0.421	0.166
amoshire	0.063	0.025
ərsev	0.153	0.06
lexico	0.299	0.118
а	0.285	0.112
ork	0.393	0 155
	2.056	0.812
una .	0.721	0.285
7	0.076	0.03
Jvania	1 78	0 702
island	0	0
Carolina	0.58	0.229
Dakota	0.072	0.029
SCOG	0.944	0.373
	4 657	1 838
	0.506	0.2
3	0.592	0.234
ent	0	0
onton	801.0	0 078
asin	0.80	0.351
liminia	1 204	Δ.55 L
no	0.052	0.00
Notion Indian country	0.601	0.370
disc. Tribo Indian country	0.001	0.237

Each State plan under paragraph (h)(1)is section shall require EGUs to comply the monitoring, record keeping, and reing provisions of part 75 of this chapter regard to Hg mass emissions.

In addition to meeting the requirements 30.26, each State plan under paragraph) of this section must show that the e has legal authority to:

Adopt emissions standards and complischedules necessary for attainment and itenance of the State's relevant annual Hg budget under paragraph (h)(3) of this on; and

) Require owners or operators of EGUs in State to meet the monitoring, record ing, and reporting requirements deed in paragraph (h)(4) of this section.

(i) Notwithstanding the provisions of graphs (h)(3) and (5)(1) of this section, if tate adopts regulations substantively tical to subpart HHHH of this part (Hg get Trading Program), incorporates such art by reference into its regulations, or its regulations that differ substantively 1 such subpart only as set forth in para-h (h)(6)(ii) of this section, then such alnoce system in the State's State plan is imatically approved as meeting the reements of paragraph (h)(3) of this sec-, provided that the State demonstrates it has the legal authority to take such on and to implement its responsibilities in such regulations.

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(ii) If a State adopts an allowance system that differs substantively from subpart HHHH of this part only as follows, then the emissions trading program is approved as set forth in paragraph (h)(6)(i) of this section.

(A) The State may decline to adopt the allocation provisions set forth in §§60.4141 and 60 1142 and may instead adopt any methodclogy for allocating Hg allowances.

(B) The State's methodology under pararaph (h)(6)(ii)(A) of this section must not allow the State to allocate Hg allowances for a year in excess of the amount in the State's annual EGU Hg budget for such year under paragraph (h)(3) of this section;

(C) The State's methodology under parasraph (h)(6)(ii)(A) of this section must require that, for EGUs commencing operation before January 1, 2001, the State will determine, and notify the Administrator of, each unit's allocation of Hg allowances by October 31, 2006 for 2010, 2011, and 2012 and by October 31, 2009 and October 31 of each year thereafter for the fourth year after the year of the notification deadline; and

(D) The State's methodology under paragraph (h)(6)(ii)(A) of this section must require that, for EGUs commencing operation on or after January 1, 2001, the State will determine, and notify the Administrator of, each unit's allocation of Hg allowances by October 31 of the year for which the Hg allowances are allocated.

(7) If a State adopts an allowance system that differs substantively from subpart HHHH of this part, other than as set forth in paragraph (h)(6)(ii) of this section, then such allowance system is not automatically approved as set forth in paragraph (h)(6)(i) or (ii) of this section and will be reviewed by the Administrator for approvability in accordance with the other provisions of paragraphs (h)(2) through (5) of this section and the other applicable requirements for a state plan under this subpart, provided that the Hg allowances issued under such allowance system shall not, and the State plan under paragraph (h)(1) of this section shall state that such Hg allowances under any allowance system approved under paragraph (h)(6)(i) or (ii) of this section.

(8) The terms used in this paragraph (h) shall have the following meanings:

Administrator means the Administrator of the United States Environmental Protection Agency or the Administrator's duly authorized representative.

Allocate or allocation means, with regard to Hg allowances, the determination of the amount of Hg allowances to be initially credited to a source.

Boiler means an enclosed fossil-or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium. Bottoming-cycle cogeneration unit means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.

Coal means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004)⁴¹ (incorporated by reference, see §60.17).

Coal-derived fuel means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.

Coal-fired means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.

Cogeneration unit means a stationary, coalfired boiler or stationary, coal-fired combustion turbine:

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

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

(1) For a topping-cycle cogeneration unit, (A) Useful thermal energy not less than 5

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

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

Combustion turbine means: (1) An enclosed device comprising a compressor, a combustion, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustion passes through the turbine, rotating the turbine; and

(2) If the enclosed device under paragraph (1) of this definition is combined cycle, any associated heat recovery steam generator and steam turbine.

Commence operation means to have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber. Electric generating unit or EGU means:

(1) Except as provided in paragraph (2) of this definition, a stationary, coal-fired boiler

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or stationary, coal-fired combustion turbine in the State serving at any time, since the start-up of a unit's combustion chamber, a generator with nameplate capacity of more than 25 megawatts electric (MW) producing electricity for sale.

(2) For a unit that qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continues to qualify as a cogeneration unit, a cogeneration unit in the State serving at any time a generator with nameplate capacity of more than 25 MW and supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale. If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity but subsequently no longer qualifies as a cogeneration unit, the unit shall be subject to paragraph (1) of this definition starting on the day on which the unit first no longer qualifies as a cogeneration unit.

Generator means a device that produces electricity.

Gross electrical output means, with regard to a cogeneration unit, electricity made available for use, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).

Gross thermal energy means, with regard to a cogeneration unit, useful thermal energy output plus, where such output is made available for an industrial or commercial process, any heat contained in condensate return or makeup water.

Heat input means, with regard to a specified period of time, the product (in million British thermal units per unit time, MMBTU/time) of the gross calorific value of the fuel (in Btu per pound, Btu/lb) divided by 1,000,000 Btu/MMBTU and multiplied by the fuel feed rate into a combustion device (in lb of fuel/time), as measured, recorded, and reported to the Administrator by the Hg designated representative and determined by the Administrator in accordance with §§60.4170 through 60.4176 and excluding the heat derived from preheated combustion air, reticulated flue gases, or exhaust from other sources.

Hg allowance means a limited authorization issued by the permitting authority to emit one ounce of Hg during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter.

Life-of-the-unit, firm power contractual arrangement means a unit participation power sales agreement under which a customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity

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and associated energy generated by any specified unit and pays its proportional amount of such unit's total costs, pursuant to a contract:

(1) For the life of the unit;

(2) For a cumulative term of no less than 30 years, including contracts that permit an election for early termination; or

(3) For a period no less than 25 years or 70 percent of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

Maximum design heat input means, starting from the initial installation of a unit, the maximum amount of fuel per hour (in Btu/ hr) that a unit is capable of combusting on a steady-state basis as specified by the manufacturer of the unit, or, starting from the completion of any subsequent physical change in the unit resulting in a decrease in the maximum amount of fuel per hour (in Btu per hour, Btu/hr) that a unit is capable of combusting on a steady-state basis, such decreased maximum amount as specified by the person conducting the physical change.

Nameplate capacity means, starting from the initial installation of a generator, the maximum electrical generating output (in MW) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other derates) as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in MW) that the generator is capable of producing on a steady-state basis and during continuous operation (when not restricted by seasonal or other derates), such increased maximum amount as specified by the person conducting the physical change.

Operator means any person who operates, controls, or supervises an EGU or a source that includes an EGU and shall include, but not be limited to, any holding company, utility system, or plant manager of such EGU or source.

Ounce means 2.84×10^7 micrograms.

Owner means any of the following persons: (1) With regard to a Hg Budget source or a

Hg Budget unit at a source, respectively: (i) Any holder of any portion of the legal or equitable title in a Hg Budget unit at the source or the Hg Budget unit;

(ii) Any holder of a leasehold interest in a Hg Budget unit at the source or the Hg Budget unit; or

(iii) Any purchaser of power from a Hg Budget unit at the source or the Hg Budget unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless Environmental

expressly providment, owner sha sor, or a person est through suc: ments are not be rectly) on the re Hg Budget unit; (2) With regan any person who with respect to t general account binding agreeme count represent: son's ownership allowances.

Potential electr: percent of a ur input, divided by (Btu/kWh), divić watt-hour (kWl 8,760 hr/yr.

Sequential use ((1) For a topp the use of rejec duction in a use tion or process; ((2) For a bc unit, the use of mal energy app tricity productie Source means installations low uous or adjacen control of the se

State means:

 For purpos entity, one of States, the Dis proved for treat of this chapter, dian Tribe that ing Program pu
For purp graphic area, ol States, the Dis Nation Indian

dian country. *Topping-cycle* generation unit the unit is f power, includi some of the re

production is thermal energy *Total energy* cogeneration u

supplied to the energy produc itself. Total energy

cogeneration uand useful the cogeneration vUnit means ε

a stationary c Useful power generation ur

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ssociated energy generated by any specunit and pays its proportional amount in unit's total costs, pursuant to a con-

for the life of the unit;

For a cumulative term of no less than irs, including contracts that permit an on for early termination; or

For a period no less than 25 years or 70 it of the economic useful life of the letermined as of the time the unit is with option rights to purchase or resome portion of the nameplate capacid associated energy generated by the t the end of the period.

imum design heat input means, starting the initial installation of a unit, the num amount of fuel per hour (in Btu/ at a unit is capable of combusting on a -state basis as specified by the manuer of the unit, or, starting from the etion of any subsequent physical in the unit resulting in a decrease in aximum amount of fuel per hour (in r hour, Btu/hr) that a unit is capable ibusting on a steady-state basis, such sed maximum amount as specified by rson conducting the physical change.

eplate capacity means, starting from itial installation of a generator, the um electrical generating output (in hat the generator is capable of proon a steady-state basis and during uous operation (when not restricted by al or other derates) as specified by the acturer of the generator or, starting he completion of any subsequent physange in the generator resulting in an se in the maximum electrical genersutput (in MW) that the generator is e of producing on a steady-state basis ring continuous operation (when not ted by seasonal or other derates), such ed maximum amount as specified by son conducting the physical change.

ttor means any person who operates, s, of supervises an EGU or a source cludes an EGU and shall include, but limited to, any holding company, utiltem, or plant manager of such EGU or

e means 2.84×10^7 micrograms.

r means any of the following persons: ith regard to a Hg Budget source or a get unit at a source, respectively:

y holder of any portion of the legal or le title in a Hg Budget unit at the or the Hg Budget unit;

ny holder of a leasehold interest in a get unit at the source or the Hg Budgor

Any purchaser of power from a Hg unit at the source or the Hg Budget der a life-of-the-unit, firm power conl arrangement; provided that, unless

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expressly provided for in a leasehold agreement, owner shall not include a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from such Hg Budget unit; or

(2) With regard to any general account, any person who has an ownership interest with respect to the Hg allowances held in the general account and who is subject to the binding agreement for the Hg authorized account representative to represent the person's ownership interest with respect to Hg allowances.

Potential electrical output capacity means 33 percent of a unit's maximum design heat input, divided by 3,413 Btu per kilowatt-hour (Btu/kWh), divided by 1,000 kWh per megawatt-hour (kWh/MWh), and multiplied by 8,760 hr/yr.

Sequential use of energy means:

(1) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process; or

(2) For a bottoming-cycle cogeneration unit, the use of reject heat from seful thermal energy application or process in electricity production.

Source means all buildings, structures, or installations located in one or more contiguous or adjacent properties under common control of the same person or persons. State means:

(1) For purposes of referring to a governing entity, one of the States in the United States, the District of Columbia, or, if approved for treatment as a State under part 49 of this chapter, the Navajo Nation or Ute Indian Tribe that adopts the Hg Budget Trading Program pursuant to §60.24(h)(6); or

(2) For purposes of referring to a geographic area, one of the States in the United States, the District of Columbia, the Navajo Nation Indian country, or the Ute Tribe Indian country.

Topping-cycle cogeneration unit means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

Total energy input means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself.

Total energy output means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

Unit means a stationary coal-fired boiler or a stationary coal-fired combustion turbine.

Useful power means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls).

Useful thermal energy means, with regard to a cogeneration unit, thermal energy that is:

(1) Made available to an industrial or commercial process (not a power production process), excluding any heat contained in condensate return or makeup water;

(2) Used in a heat application (e.g., space heating or domestic hot water heating); or

(3) Used in a space cooling application (*i.e.*, thermal energy used by an absorption chiller).

Utility power distribution system means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

§60.25 Emission inventories, source surveillance, reports.

(a) Each plan shall include an inventory of all designated facilities, including emission data for the designated pollutants and information related to emissions as specified in appendix D to this part. Such data shall be summarized in the plan, and emission rates of designated pollutants from designated facilities shall be correlated with applicable emission standards. As used in this subpart, "correlated" means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emission standards.

(b) Each plan shall provide for monitoring the status of compliance with applicable emission standards. Each plan shall, as a minimum, provide for:

(1) Legally enforceable procedures for requiring owners or operators of designated facilities to maintain records and periodically report to the State information on the nature and amount of emissions from such facilities, and/or such other information as may be necessary to enable the State to determine whether such facilities are in compliance with applicable portions of the plan.

(2) Periodic inspection and, when applicable, testing of designated facilities.

(c) Each plan shall provide that information obtained by the State under paragraph (b) of this section shall be correlated with applicable emission

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SO ₂ Allow	ances	· · ·		\$/ton
	Bid	Ask	Price	Change
2005	685.00	695.00	690.00	+5.00
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NO _x Allov	vances			\$/ton
	Bid	Ask	Price	Change
2005	3,350.00	3,425.00	3,387.50	at the state an for
2006	3,450.00	3,550.00	3,500.00	
2007 :	2,850.00	3,000.00	2,925.00	1 .
2008	2,300.00	2,750.00	2,525.00	—
2009	2,200.00	2,500.00	2,350.00	1

Assessment A	werages			
SO ₂ Allowances			:	\$/ton
2005	Bid	Ask	Price	Change
March-to-date	667.08	678,33	672.71	+1.57
February Average	647.89	660.53	654.21	
Q1-to-date average	669.51	683.33	676.42	+0,27
Q4 average	636.77	663.23	650,00	[
NO _x Allowances	sagi taga			\$/ton
2005	Bid	Ask	Price	Change

2005	Bid	Ask	Price	Change
March-to-date	3,372,92	3,431.25	3,402.08	-1.33
February Average	3,392.11	3,460.53	3,426.32	
Q1-to-date average	3,441.18	3,513.24	3,477.21	-1.79
Q4 average	2,195.97	2,268.15	2,232.06	

Executive Briefing

- EPA's decision to de-list power plants as a source of hazardous air pollutants allowed the agency to select a cap-and-trade approach as a means to control mercury emissions, but the move will likely be a prime focus of any lawsuit attacking the final mercury rule.
- Complaints from bituminous coal-producers that EPA's proposed mercury rule would create an uneven playing field appear to have fallen on deaf ears, as the agency unveiled a final rule yesterday that is more favorable to sub-bituminous and lignite coals.
- The coal industry reacted positively to EPA's newly issued Clean Air Interstate Rule, particularly Eastern coal producers who say the new regulations will make Appalachian coal more attractive to East Coast utilities.
- The Department of Energy today awarded \$48.7mn in clean coal grants to 32 research projects as part of the Bush administration's zero-emissions power plant initiative, known as FutureGen.

Utility de-listing likely focus of Hg lawsuits

EPA's decision to de-list power plants as a source of hazardous air pollutants allowed the agency to select a cap-andtrade approach as a means to control mercury emissions, but the move will likely be a prime focus of any lawsuit attacking the final mercury rule.

"The de-listing is the big issue here. If you cannot de-list then you need to have a maximum achievable control technology (MACT) standard," said Scott Edwards, legal director at the Waterkeeper Alliance, which announced plans yesterday to sue EPA over the mercury rule.

EPA determined in December 2000 that it was "appropriate and necessary" to regulate power plants under Section 112 of the Clean Air Act (CAA) and listed them as a regulated source category. This required EPA to implement a MACT standard to limit mercury emissions from power plants, but it preferred a cap-and-trade approach under Section 111 and so had to de-list power plants as a source category.

In a separate but related rulemaking issued yesterday in conjunction with the utility mercury rule, EPA revised its December 2000 finding and de-listed power plants as a source category, allowing it to use the cap-and-trade approach.

EPA essentially argued that it made a mistake back in December 2000 and should not have listed power plants as a source category. The CAA lays out specific procedures for de-listing a source category, which EPA did not follow. But the agency argues in the de-listing rulemaking that it can take such action under another section of the law.

"Congress set up an entirely different structure and predicate for assessing whether utility units should be listed for regulation under Section 112 ... [which] provides EPA significant discre-





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Market Overview

• The SO_2 and NO_x markets remained quiet today, with SO_2 trading once at \$690, a \$5 jump since yesterday and no NO_x trades reported.

• 50 tons were reported trading in the NY NO_X market for about \$2,000.

• Utilities are continuing to digest the Clean Air Interstate Rule and utility mercury rule, recently issued by EPA which might be contributing to the light volume.

Argus Air Daily is reevaluating its assessment of NO_x prices in 2009. EPA finalized its Clean Air Interstate Rule March 10, which will replace the SIP Call with a two-tiered trading scheme, one for the summer ozone season and one for the entire year in the 28 states under CAIR, starting in 2009.



SO₂ vs Cinergy Power Dailies



Argus SO ₂	Emissions				tons
	Last Week	Prior week	Change	Year-to-date	Change
East	35,872	34,693	3.4%	357,158	1%
Midwest	83,013	81,545	1.8%	834,399	-3%
South Central	15,102	13,508	11.8%	142,477	1%
Southeast	57,053	54,929	3.9%	551,890	-5%
Southwest	6,389	6,227	2.6%	64,420	-10%
Northwest	491	461	6.5%	5,196	1%
Total	204,432	196,121	4.2%	2,017,316	-2%
For a breakdor the emissions figures do not	wn of the state are calculated sum to Total o	es included in I, contact: airc lue to averagi	each region a laily@argusm ng.	nd more details ediagroup.com.	on how Regional

Deals D	Done				\$/ton
Date	Туре	Transaction	Vintage	Tons	Price
16-Mar	SO ₂	Trade	2005	2,500	: 690.00

SO ₂ Allowance Transfers	1. ¹	15-	Mar-05
Transferor	Transferee	Vintage	Tons
American Electric Power	Cinergy	2002	: 1,357
American Electric Power	Cinergy	2003	3,429
American Electric Power	Cinergy	2005	214
BP	Constellation Energy Group	1996	5
BP	Constellation Energy Group	: 1999	836
BP	Constellation Energy Group	2001	935
BP	Constellation Energy Group	2002	. 46
BP	Constellation Energy Group	2003	507
BP et la relative d'alle	Constellation Energy Group	2004	10,171
BP	Constellation Energy Group	2005	7,500
Cantor Fitzgerald	FirstEnergy	2002	931
Cantor Fitzgerald	FirstEnergy	2003	1,569
Central Vermont Public Service	TXU Electric	2007	2,500
Central Vermont Public Service	TXU Electric	2008	2,500
Central Vermont Public Service	TXU Electric	2009	2,500
Central Vermont Public Service	TXU Electric	2010	2,500
Central Vermont Public Service	TXU Electric	2011	2,500
Central Vermont Public Service	TXU Electric	2012	2,500
Central Vermont Public Service	TXU Electric	2013	2,500
Central Vermont Public Service	TXU Electric	2014	2,500
Central Vermont Public Service	TXU Electric	2015	2,500
See methodology at end of rep	ort.		

NO _x Allowance Transfers	and the second second pro-	15	Mar-05
Transferor	Transferee	Vintage	Tons
Citadel Investment Group	Reliant Energy	2005	50
Morgan Stanley	Constellation Energy Group	2005	250
New York Power Authority	Energy East	2005	: 100
See methodology at end of rep	ort.		*******

Continued from page 1

\$/ton

tion in making the appropriate and necessary finding" and revising it, EPA argued in the de-listing rulemaking.

Once EPA established that it has the authority to de-list in the manner it selected, it then argued that regulating power plants under Section 112 is neither appropriate nor necessary since mercury emissions will not pose a public health hazard to most of the US population after reductions from the cap-and-trade approach are achieved.

Environmental groups questioned EPA's findings on the future health hazards of mercury pollution, but argued more directly that EPA does not have the authority to utilize the alternative de-listing approach that it selected.

Congress was clear when it amended the CAA in 1990 and required a MACT approach to control power plant mercury emissions if their health impacts were found to be severe, Edwards said. At best, Congress intended to give power plants a delay from regulation and not an exemption, he added.

John Stanton, senior counsel at Clear the Air, noted that



EPA's approach for de-listing, which the agency did pursuant to Section 112 (n) (1) (A) of the CAA, entails much more "broad and nebulous authority" than the usual approach under Section 112 (c) (9).

Under the rules of statutory construction, whenever a law has a precise authority that says how to do something, it cannot be over-ridden by something that is more vague, he said. EPA was not available for comment.

The decision to de-list power plants as a source category allows EPA to proceed with the cap-and-trade approach for mercury emissions, but more significantly it also allows EPA to avoid controlling other hazardous air pollutants, including lead and chromium, which form the vast majority of toxic emissions from power plants and are arguably more dangerous than mercury, Stanton added.

EPA's final mercury rule sets a two-phase cap — 38 tons in 2010 and 15 tons in 2018 — and permits utilities to buy and sell allowances to comply (AAD 3/15/05). Groups have 60 days after the rule is published in the *Federal Register* to sue EPA. In addition to the Waterkeeper Alliance, Pennsylvania, New Jersey, New York and Connecticut have also indicated they will sue.

Mercury rule retains coal rank bias

Complaints from bituminous coal-producers that EPA's proposed mercury rule would create an uneven playing field appear to have fallen on deaf ears, as the agency unveiled a final rule yesterday that is more favorable to sub-bituminous and lignite coals.

EPA's mercury rule calls for a 38-ton cap on emissions from 2010-2017 and a 15-ton cap from 2018 on, each to be met through a cap-and-trade system (AAD 3/14/05). The contested allocation of three times as many allowances to lignite coals and 1.25 times to sub-bituminous as compared with bituminous coals has not been changed. EPA's unequal treatment of different ranks of coal has already prompted the Pennsylvania Department of Environmental Protection to threaten a challenge to the final rule (AAD 03/15/05). "No coal-type should be given an artificial regulatory or legislative advantage over another," agreed Consol Energy, the largest US producer of bituminous coal, in a statement.

"Sometimes we take comments into account if we get a consensus, but we did not get a consensus in this case," said Mary Jo Krolewski, environmental engineer at EPA's Clean Air Markets Division.

Northern Appalachian and some Illinois Basin coals have a higher mercury content than other bituminous coals, although they will be allocated allowances on the same basis. This will particularly hurt facilities burning coal from central Pennsylvania, which will have to achieve a much higher reduction than others, said Thomas Hewson, principal of consulting firm Energy Ventures Analysis (EVA). Illinois has the highest risk exposure to the new rule, as while it already burns a lot of sub-bituminous

Powder River Basin (PRB) coal, it does not have many scrubbed plants, he added. Michigan and Ohio will also have to take action to address their mercury obligations.

EVA is evaluating the potential costs of mercury control technologies necessary to meet the new requirements and will release the results of the study later this month.

Companies burning bituminous coals, particularly in Pennsylvania, Illinois and Ohio, that do not already have plans to install scrubbers, will be most at risk from the new rules, Hewson said. For example, Reliant Energy's Keystone plant in Armstrong County, Pa., has not announced any plans to fit scrubbers. According to EPA's Toxic Release Inventory the plant emitted 1,800lb of mercury in 2001, more than any other power plant in the nation, while Pennsylvania had the highest mercury emissions of any state.

Utilities burning lignites might be a little bit better off than they were before, Hewson said, adding "based upon initial tests Texas should be in pretty good shape if mercury technology can achieve projected performance." Texas is a heavy lignite coal user and had the highest mercury emissions most years from 1998-2002, so will get the most allowances: 4.657 tons/yr in the first phase and 1.838 tons/yr from 2018.

EPA tried to reflect the challenges of mercury removal in its uneven allocation of allowances. While some bituminous coals may have above-average mercury content, much of it is oxidized during combustion, particularly if the unit has a selective catalytic reduction (SCR) unit to control nitrogen oxides. Oxidized mercury is water-soluble and can therefore be captured in a scrubber for sulfur dioxide controls. Mercury is more difficult to remove from sub-bituminous and lignite coals as more is emitted in the elemental form, of which little is removed by existing controls.

EPA has based the first phase cap of the mercury rule on the assumption that controls installed to comply with its Clean Air Interstate Rule (CAIR) for SO₂ and NO_x will bring mercury emissions down to at least 38 tons as a result of these so-called co-benefits. The agency projected 2010 emissions of 31.3 tons as utilities make early reductions in order to bank allowances for the future. But the mercury rule will require further cuts even in the first phase according to EVA, which is forecasting that co-benefits of the CAIR rule will bring emissions down to 42 tons by 2010.

But states still have the discretion over allocation of allowances to individual sources, and may not all follow EPA's proposed compliance schedule attached to the rule based on historic heat input. There is a danger that some states will allocate fewer allowances to those facilities that have already announced or undertaken SCR and scrubber projects than to those that have done nothing.

The allowance allocations were based on the average of the highest three years of emission at the unit level from 1998-2002, based on coal type input in 1999. EPA suggested that states should use the years 2000-2004 to determine the baseline for



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1999 emissions	of mercury by stat	te vs mercury ru	le budgets				<u> </u>	
	Based upon plant reported fuel use and mercury tests					Budget (tons)		Pct change
State	Pounds of particulate- bound mercury (Hg)	Pounds of oxidized mercury(Hg)	Pounds of elemental mercury (Hg)	Pounds of total mercury emitted	Tons of total mercury emitted	2010-2017	2018 and thereafter	of 1999 and 2018
Alaska	0.150	0,650	14,100	14.890	0.007	0,005	0,002	-71.43%
Alabama	170.920	2,316.200	2,444.200	4,931.320	2.466	1.289	0.509	-79.36%
Arkansas	1.440	286.400	724.000	1,011.840	0.506	0,516	0.204	-59.68%
Arizona	12.090	113.020	1,129,400	1,254.510	0.627	0.454	0.179	-71.45%
California	3.520	2,320	2.870	8.720	0.004	0.041	0.016	300.00%
Colorado	6.880	197,600	306,000	510,480	0,255	0,706	0.279	9,41%
Connecticut	0,190	2,430	68,500	71.120	0.036	0,053	0.021	-41.67%
Delaware	12.710	141.080	53.340	207.130	0.104	0.072	0.028	-73,08%
District of Columbia						0,000	0.000	
Florida	80,320	883,800	957,200	1,921.320	. 0.961	1,233	0.487	-49,32%
Georgia	121,860	1,646.000	1,209.600	2,977.460	1,489	1.227	0.484	-67.50%
Hawaii	0.050	0.530	14.970	15.550	0.008	0.024	0.009	12,50%
Idaho	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
lowa	7.760	512.400	1,429.000	1,949,160	0.975	0.727	0.287	-70.56%
Illinois	70.340	2,142.600	3,776.200	5,989.140	2,995	1,594	0.629	-79.00%
Indiana	199.720	2,560.000	2,124.000	4,883.720	2.442	2.098	0.828	-66.09%
Kansas	12,750	191.260	1,446.000	1,650.010	0.825	0.723	0.285	-65,45%
Kentucky	145.480	1,739.200	1,595,200	3,479.880	1.740	1.525	0.602	-65.40%
Louisiana	2.520	264.800	739.400	1,006.720	0.503	0.601	0.237	-52.88%
Massachusetts	19,410	194.760	78,060	292.230	0.146	0,172	0.068	-53.42%
Maryland	97,500	1,111.200	611,400	1,820.100	0.910	0,490	0.193	-78.79%
Maine	0.250	2.780	1_050	4.070	0.002	0.001	0.001	-50.00%
Michigan	104.160	1,551.800	1,426.600	3,082.560	1.541	1.303	0.514	-66.65%
Minnesota	15.290	173.420	1,076.000	1,264.710	0.632	0.695	0.274	-56.65%
Missouri	12.610	901.600	1,830.000	2,744.210	1.372	1.393	0.550	-59.91%
Mississippi	18.920	284.400	375.800	679.120	0.340	0.291	0.115	-66,18%
Montana	12.830	69.960	859.200	941.990	0.471	0.378	0.149	-68.37%
Navajo Nation						0.601	0.237	
North Carolina	179,980	2,014.800	881,400	3,076.180	1.538	1,133	0.447	-70.94%
North Dakota	34.200	276.600	1,737.600	2,048.400	1.024	1.564	0.617	-39,75%
Nebraska	1.540	177.360	654.200	833.100	0.417	0.421	0,166	-60,19%
New Hampshire	4,500	18.740	13,730	36.970	0.018	0,063	0.025	38.89%
New Jersey	12.410	90.620	93.080	196.110	0.098	0.153	0.060	-38.78%
New Mexico	20.580	87.360	2,072.200	2,180,140	1.090	0.299	0.118	-89.17%
Nevada	16.160	179.760	133.580	329.500	0.165	0.285	0.112	-32.12%
New York	47.600	553.400	426.400	1,027.400	0.514	0.393	0.155	-69.84%
Ohio	314,200	3,620.200	3,174.600	7,109.000	3.555	2,056	0.812	-77.16%
Oklahoma	3.390	378.800	1,339.800	1,721,990	0.861	0.721	0.285	-66.90%
Oregon	1.050	56.840	110.440	168.330	0.084	0.076	0.030	-64.29%
Pennsylvania	590,400	5,974.000	3,394.200	9,958,600	4.979	1.780	0.702	-85,90%
Rhode Island	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
South Carolina	53.340	608,400	406.000	1,067,740	0.534	0,580	0.229	-57.12%
South Dakota	0,460	36,100	74.720	111.280	0.056	0.072	0.029	-48.21%
Tennessee	121.700	1,373.400	755.000	2,250.100	1.125	0.944	0.373	-66,84%
Texas	56.420	3,093.000	6,895,800	10,045.220	5.023	4.657	1.838	-63.41%
Utah	10.680	118.700	153.840	283.220	0,142	0.506	0.200	40.85%
Ute Indian Tribe				L		0.060	0.024	
Virginia	76,480	844.800	345,400	1,266.280	0.633	0.592	0.234	-63.03%
Vermont	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1
Washington	0.820	163.320	365.600	529.740	0.265	0.198	0.078	-70.57%
Wisconsin	17.090	718,200	1,528.600	2,263.890	1.132	0.890	0.351	-68.99%
West Virginia	266.200	3,004.600	1,661.000	4,931.800	2.466	1.394	0.550	-77.70%
Wyoming	8,010	138.980	1,681.000	1,827.990	0.914	0.952	0,376	-58.86%
Takal Bashin	2 966 870	40.817.790	52.190.280	95.974.940	1	1	1 1 1 1	1
Total los/yr	2,000107.0				·			



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allowance allocation to sources, as they will have that data in time to present their allocation plan to the agency by the Oct. 31, 2006, deadline, Krolewski said.

An even greater wild card is which states will participate. New Jersey, which has already adopted a rule to cut mercury emissions by 90 pct, said yesterday it will sue EPA for trying to use a trading program to control a known neurotoxin, and repealing its earlier findings that it should be treated as a hazardous pollutant under a plant-by-plant technology-based standard. Local and state air regulators' groups STAPPA/ALAPCO predicts that many states will adopt their own programs as a result of what they consider a weak rule, as well as states such as New Jersey, Connecticut and Massachusetts that have already done so.

"What is key is how many states will participate and whether there will be an active market," said John Blaney of ICF Consulting. "If enough states opt out it may defeat the rationale for the trading program, which is finding the most cost-effective way to make cuts." Krolewski conceded that "it could possibly impact the cost of the program if states with larger budgets do not participate, but we could not be that predictive and assumed that all would." EPA has removed the originally proposed "safety valve" of \$35,000/Ib at which allowances could have been bought from future years' allocations, which may have significant implications if few states participate.

But if a viable trading program does develop, the marginal cost of scrubbers will decrease as a value is placed on the co-benefit reduction of mercury. At a given SO₂ allowance price, 10-20 pct more coal plants may be scrubbed than without the additional incentive of gaining mercury allowances, Blaney predicts. But mercury will still not be as big a driver for installing controls as SO₂ and NO_x, as even with allowance prices at \$30,000/lb, it will only add somewhere between \$1-\$3/MWh onto the cost of producing electricity, compared with AEP estimates for SO₂ at \$5.60/MWh and \$4.20/MWh for NO_x at current allowance prices for a typical Central Appalachian coal-fired plant (AAD 3/10/05).

PRB coal producers have a "critical window" to take advantage of the current strong incentive to switch to PRB coals presented by their lower sulfur content in light of increasingly stringent SO_2 limits, Blaney said. An additional 250mn tons/yr of spare permitted capacity on top of the roughly 400mn tons/yr PRB output is available and in strong demand, but is constrained by an inadequate rail network.

With prices for low-sulfur Eastern coals having risen to more than \$60/ton from \$30/ton in the last three years and PRB coals still only around \$6-7/ton, there is a potential for PRB coal output to grow even faster than the 5-6 pct increase seen last year, Blaney said. But this incentive will go away as the large coalfired generators install scrubbers and switch back to high-sulfur coals, so the depletion of low-sulfur varieties becomes less of a problem. Unless the railroads can resolve the bottlenecks, PRB coals may lose out on this opportunity, he added. It is not clear

whether a premium for low-mercury coal would develop as it has for low-sulfur coal, as producers do not know if there is a consistency in mercury throughout a mine or seam that can be measured or controlled, Blaney said.

Mercury emission limits for new coal-fired units				
Unit type	Proposed limits Hg (10 ⁻⁴ lb/MWh)	Final limits Hg (10° lb/MWh)		
Bituminous fired ²	6	21		
Sub-bituminous fired (wet FGD)	20	42		
Sub-bituminous fired (dry FGD)	20	7.8		
Lignite fired	62	145		
Coal refuse fired	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	renetite ein 1.4 . rene in ei		
¹ Based on 12-month rolling avera ² Anthracite units are included wit	age. h bituminous units.			
Source: E				

EPA's final rule has given new sources higher mercury emissions limits than they had in the December 2003 proposal, although they remain more lenient for sub-bituminous and lignite coals. New sources burning lignite coals must not discharge gases containing mercury in excess of 145×10^{-6} lb/MWh, more than double the originally proposed limit of 62×10^{-6} lb/MWh, while the limit for bituminous coals has more than tripled to 21×10^{-6} lb/MWh. Sub-bituminous coal consumers with a wet scrubber must comply with a 42×10^{-6} lb/MWh limit, and those with dry scrubbers with a 78 x 10^{-6} lb/MWh limit, compared with 20×10^{-6} lb/MWh as set out in the proposed rule.

New sources will be allocated only as many allowances as they need, as long as they stay within their specified limits, from a set-aside of initially 5 pct. After five years, when they will have established a baseline, they may be able to overcomply and sell their excess allowances.

Coal industry generally positive on CAIR

The coal industry reacted positively to EPA's newly issued Clean Air Interstate Rule, particularly Eastern coal producers who say the new regulations will make Appalachian coal more attractive to East Coast utilities.

The new rules will transform coal-fired power plants into clean sources of low-cost, reliable electricity, Consol Energy said in a statement. The company said that while it would have preferred a statutory approach to the emissions standards, the new rules will continue to drive down emissions, ensuring that the nation's abundant coal resources can continue to be used to generate electricity.

EPA's mercury rule will also drive the installation of emissions control equipment, said Consol. "We expect that the two rules, when taken together, will result in a significant increase in the use of modern pollution control technologies to meet the lower standards for SO_2 , NO_x , and the first-ever standards for mercury," Consol said, noting that as the rules go into effect, the disparity be-



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tween compliance and non-compliance coals will be eliminated.

"No coal will be clean enough to be burned without emissions reductions achieved with retrofitted modern pollution control equipment or the purchase of emission allowances from units that do install technology," Consol said. "As a coal's sulfur content becomes less of a concern (because of technology), high-Btu coals in the eastern US should become more attractive as a fuel source to Eastern power plants because of those coals' lower delivered cost per Btu."

But the company warned that the mercury rule creates an unlevel playing field by giving coal from some basins an unfair advantage over others. "No coal-type should be given an artificial regulatory or legislative advantage over another. By keeping all of America's coal resources available for use, this country can take an important step toward energy independence."

Jack Gerard, chief executive of the National Mining Association, said critics of the new mercury rule overlook its benefits.

"In addition to entirely overlooking the economic implications from higher energy prices, critics who fault EPA's rule miss two obvious points — this is the first rule ever designed to reduce mercury emissions from these sources, and it will achieve impressive reductions."

While compliance will be expensive for coal-fired power plants, the proposed cap-and-trade system "will provide the nation with lower mercury levels than would be possible on a plantspecific basis." The nationwide limits under cap and trade will not expand to accommodate the operation of additional power plants that will be needed for generating the projected increases in electric power.

The NMA echoed Consol's call for a statutory approach to emissions reductions, saying "Clear Skies legislation would still be preferable — it offers similar improvements in air quality but would provide power companies with greater regulatory certainty for building the new baseload capacity that is needed to fuel a growing economy.

Ted Venners, chief executive of coal processing company KFx, also expressed support for the new air rules, while calling for a nationwide legislative approach to the emission issue.

"We remain committed to helping the coal-fired industry comply with these standards while calling on Congress to pass similar, nationwide legislation," Venners said. "The adoption of such legislation would further drive the nation toward clean-energy delivery and would provide additional clarity for the power industry as it implements measures to meet emissions standards."

DOE gives \$48.7mn for clean coal projects

The Department of Energy today awarded \$48.7mn in clean coal grants to 32 research projects as part of the Bush administration's zero-emissions power plant initiative, known as FutureGen.

The projects focus on four key research areas --- the carbon

sequestration program area will fund eight programs, the power systems advanced research program will fund eight; the coal fuels and hydrogen project area will fund 12 projects; and the advanced gasification program area will fund four projects. Researchers will also contribute \$13.7mm towards the projects.

Projects will cover a wide range of topics, including:

• improved and new methods of producing pure hydrogen in coal gasification;

• hydrogen handling — safe storage of hydrogen, and onboard storage which will aid the commercialization of hydrogen fuel cell vehicles;

• improved and simplified removal of multiple pollutants in coal gasification;

• development of carbon dioxide capture technology that can be retrofit on existing coal-based power plants;

• expansion of carbon sequestration technology to identify and accurately assess the CO₂ storage capacity of geologic formations; and

• development of new alloys to advance ultra-supercritical generation with pulverized coal, an emerging newer technology that can deliver power with ultra-low emissions and ultrahigh efficiency.

Committee backs greater ethanol use

The Senate Environment and Public Works Committee voted today to increase the proposed national renewable fuels standard included in the energy bill from 5bn gallons/yr to 6bn gallons/yr of ethanol or biodiesel by 2012, while eliminating the federal oxygenate requirement for non-attainment areas.

The legislation seeks to ban the use of MTBE, a clean burning fuel additive that has caused groundwater contamination, by 2010 and replace it with increased use of renewable fuels such as ethanol and biodiesel to preserve the emissions benefits of MTBE. Previous versions of the renewable fuels standard (RFS) called for mixing 5bn gallons/yr of ethanol or biodiesel into the gasoline supply by 2012, but the committee decided to increase that amount, citing the rising production levels from the ethanol industry.

"Today's vote clears the way for the Senate to make ethanol a cornerstone of America's energy policy," said Sen. John Thune (R-S.D.), who sponsored the legislation.

Relief from the oxygenate requirement is sought by several states, including California, Louisiana and New York. Last week, Sen. Dianne Feinstein (D-Calif.) asked EPA to speed up consideration of her state's petition to waive the oxygenate requirement so that it can use gasoline that does not contain ethanol, which the California EPA claims would increase emissions of some smog-forming pollutants (AAD 3/10/05). But the legislation would still require the use of ethanol, so Sen. Barbara Boxer (D-Calif.), a member of the Senate committee, plans to



Methodology

Argus publishes daily NO_x allowance prices for current vintage (spot) and forward market prices for four additional years. Argus publishes daily SO_2 allowance prices for current vintage (spot). Each Friday on a weekly basis, Argus publishes forward market prices for seven additional years. The forward SO_2 prices reflect the value on the Friday assessed, not a value representative of the entire week.

The Argus prices published daily are intelligent assessments of the bid/ ask range at the timestamp of 5:00pm Eastern Time. The "price" represents the midpoint between the assessed bid and ask. The assessed range takes into account deals done, bids, offers, spreads between current and future vintages, and other assessments of the market gathered through a wide survey of participants. The assessment represents the range within which deals traded or could have traded at the close of the trading day for that particular vintage. Argus holds as a guiding principle that our assessments should be the product of intelligence, skill, and diligent investigation.

Each week on Friday, *Argus* publishes a Weekly Index for SO_2 and NO_x . These indices are the arithmetic average of the daily "Price" published for current vintage allowances for each day on which prices were published during that week. On the last business day of each calendar month, *Argus* publishes a Monthly Index for SO_2 and NO_x . These indices are the arithmetic average of the daily "Price" published for current vintage allowances for each day on which prices were published during that month. Argus publishes a monthly Broker Index as well, based on a methodology suggested by the Emissions Marketing Association.

The US Environmental Protection Agency (EPA) publishes transfers of SO_2 and NO_x allowances every business day. *Argus* publishes details on daily transfers between non-affiliated companies or organizations. Separately, *Argus* collects details on transactions completed in the over-thecounter market for emission allowances and publishes them in the "Deals Done" table in *Argus Air Daily* each business day. These transactions are typically completed two weeks or more before they are finalized and processed through the EPA's allowance tracking system. Therefore volume and type of trades in the "Deals Done" table will not match up with the same day's transfers in the EPA tables. offer an amendment on the floor to exempt California from the new RFS.

"We do not believe we need it for clean air," she said.

To address some of those concerns, the bill does include a provision requiring EPA and other agencies to conduct several studies on the air quality, economic and health impacts from the RFS. EPA would also have to conduct an analysis to ensure that areas are not "backsliding" on their emissions reductions as a result of the use of ethanol or biodiesel.

By dropping the oxygenate requirement, ethanol producers say the bill will let refiners use renewables in those areas where it is most cost-effective while preserving the air benefits from the current mandate. But refiners said they have "serious concerns" about the increased ethanol mandate.

"A renewable fuels provision of 5bn gallons/yr with a national averaging and credit trading program would give refiners improved flexibility in their use of oxygenates," the American Petroleum Institute (API) said.

API and the National Petroleum Refiners Association also want the Senate to include "safe harbor" protection from lawsuits for MTBE manufacturers. The bill approved today does not contain a safe harbor provision for MTBE, but does for ethanol. Previous versions of the energy bill were held up in the Senate due to the inclusion of liability protection for MTBE producers.

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Notices

Air programs: State implementation plans; adequacy status for transportation conformity purposes — Meetings: Clean Air Act Advisory Committee,

Oregon, 05-05325 [FRL-7885-1]

05-05321 [FRL-7885-5]

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CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 10th day of January, 2007, I have served electronically the attached APPEARANCES OF KATHLEEN C. BASSI, STEPHEN J. BONEBRAKE, and SHELDON A. ZABEL ON BEHALF OF MIDWEST GENERATION, LLC, and PETITION FOR ADJUSTED STANDARD, upon the following persons:

Dorothy Gunn, Clerk Illinois Pollution Control Board James R. Thompson Center Suite 11-500 100 West Randolph Chicago, Illinois 60601

and electronically and by first-class mail with postage thereon fully prepaid and affixed to the persons listed on the **ATTACHED SERVICE LIST**.

Kathleen C. Bassi

Sheldon A. Zabel Kathleen C. Bassi Stephen J. Bonebrake SCHIFF HARDIN, LLP 6600 Sears Tower 233 South Wacker Drive Chicago, Illinois 60606 312-258-5500

SERVICE LIST (AS 07-03)				
Alec Messina, General Counsel John J. Kim, Managing Attorney Air Regulatory Unit Division of Legal Counsel Illinois Environmental Protection Agency 1021 North Grand Avenue, East P.O. Box 19276 Springfield, Illinois 62794-9276 john.j.kim@illinois.gov				

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