

ORIGINAL

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF: )  
 )  
PROPOSED NEW 35 ILL. ADM. CODE 225 )  
CONTROL OF EMISSIONS FROM )  
LARGE COMBUSTION SOURCES )

R06- 25  
(Rulemaking - Air)

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MAR 14 2006

STATE OF ILLINOIS  
Pollution Control Board

NOTICE

TO: Dorothy Gunn  
Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph St., Suite 11-500  
Chicago, IL 60601-3218

Matthew Dunn  
Chief  
Division of Environmental Enforcement  
Office of the Attorney General  
188 West Randolph St., 20<sup>th</sup> Floor  
Chicago, IL 60601

Virginia Yang  
Deputy Legal Counsel  
Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62702

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the RULEMAKING PROPOSAL entitled "PROPOSED NEW 35 ILL. ADM. CODE 225, CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES," MOTION TO HOLD REQUIRED HEARINGS IN SPRINGFIELD, MOTION FOR WAIVER OF COPY REQUIREMENTS, AND APPEARANCES of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: 

John J. Kim  
Managing Attorney  
Air Regulatory Unit  
Division of Legal Counsel

DATED: March 14, 2006

1021 North Grand Avenue East  
P. O. Box 19276  
Springfield, IL 62794-9276  
217/782-5544

THIS FILING IS SUBMITTED  
ON RECYCLED PAPER

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Pollution Control Board

***THIS IS A  
FAST TRACK  
RULEMAKING***

FILED IN ACCORDANCE WITH  
SECTION 28.5  
OF THE ENVIRONMENTAL  
PROTECTION ACT  
(415 ILCS 5/28.5)

ORIGINAL

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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MAR 14 2006

IN THE MATTER OF: )

PROPOSED NEW 35 ILL. ADM. CODE 225 )  
CONTROL OF EMISSIONS FROM )  
LARGE COMBUSTION SOURCES (Mercury)

R06-25  
(Rulemaking – Air)

STATE OF ILLINOIS  
Pollution Control Board

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1. Cover sheet indicating submittal under Section 28.5 of the Environmental Protection Act [415 ILCS 5/28.5]
2. Notice of Filing
3. Appearances of John J. Kim, Managing Attorney, Charles E. Matoesian, Assistant Counsel, and Gina Roccaforte, Assistant Counsel, for the Illinois Environmental Protection Agency
4. Statement of Submittal by Director Douglas P. Scott
5. Motion to Hold Required Hearings in Springfield
- 5. Motion for Waiver of Copy Requirements
6. Statement of Reasons
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*Fossil Fuel-Fired Power Plants: Report to the House and Senate Environment and Energy Committees, IEPA/BOA/04-020, Illinois Environmental Protection Agency, September 2004.*

*State of New Jersey, et al. v. United States Environmental Protection Agency, Docket No. 05-1097 and consolidated cases, Per Curiam Order, December 8, 2005.*

*Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Final Rule, 70 Fed. Reg. 28606 (May 18, 2005).*

*Argus Air Daily, Volume 13, 036, February 23, 2006.*

*Department of Environmental Protection, Division of Air Resource Management, Clean Air Mercury Rule (CAMR) Preliminary Proposal, March 2, 2006.*

*Regulating Mercury from Power Plants: A Model Rule for States and Localities*, STAPPA/ALAPCO, November 2005.

Meeting with Stakeholders, Sign-in Sheet (January 24, 2006)

Meeting with Stakeholders, Sign-in Sheet (January 31, 2006)

Meeting with Stakeholders, Sign-in Sheet (February 7, 2006)

Meeting with Stakeholders, Sign-in Sheet (February 14, 2006)

Meeting with Stakeholders, Sign-in Sheet (February 21, 2006)

Meeting with Stakeholders, Sign-in Sheet (February 28, 2006)

8. First Notice Form for New 35 Ill. Adm. Code 225
9. Proposed New 35 Ill. Adm. Code 225
10. *Technical Support Document for Reducing Mercury Emissions from Coal-Fired Electric Generating Units*, AQPSTR 06-02, Illinois Environmental Protection Agency, March 14, 2006.
11. Attachments to *Technical Support Document for Reducing Mercury Emissions from Coal-Fired Electric Generating Units*.
12. Documents Relied Upon (See attachment A)
13. Incorporations by Reference (See attachment B)
14. Certificate of Service
15. Disk in Microsoft WORD containing First Notice Form for New Part 225 (FIRSTNOTICE-225.doc) and Proposed New Part 225 (RULE-225.doc)

## ATTACHMENT A

### Documents Relied Upon

1. The Clean Air Act, as amended in 1990 (42 U.S.C. § 7401 *et seq.*).
2. Illinois Environmental Protection Act (415 ILCS 5/1 *et seq.*).
3. Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units, 65 Fed. Reg. 79825 (December 20, 2000).
4. Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Proposed Rule, 69 Fed. Reg. 4652 (January 30, 2004).
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6. Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units From the Section 112(c) List; Final Rule, 70 Fed. Reg. 15994 (March 29, 2005).
7. Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Final Rule, 70 Fed. Reg. 28606 (May 18, 2005).
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15. Durham, "Advances in Mercury Control Technology", Pennsylvania Mercury Rule Workgroup Meeting, November 18, 2005.
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17. Hurt, R., Suuberg, E., Yu-Ming, Mehta, A., "The Passivation of Carbon for Improvement of Air Entrainment in Fly Ash Concrete",  
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**Attachment B**  
**Incorporations by Reference**

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3. ASTM. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959 (610) 832-9585:
  - a) ASTM D388-77, 90, 91, 95, 98a, or 99, Classification of Coals by Rank (Reapproved 2004).
  - b) ASTM D3173-03, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke (Approved April 10, 2003).
  - c) ASTM D3684-01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method (Approved October 10, 2001).
  - d) ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke (Approved April 1, 2004).
  - e) ASTM D6414-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold Vapor Atomic Absorption (Approved October 10, 2001).
  - f) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) (Approved April 10, 2002).

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APPEARANCE

The undersigned hereby enters her appearance as an attorney on behalf of the  
Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By:   
Gina Roccaforte  
Assistant Counsel  
Division of Legal Counsel

DATED: March 13, 2006

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Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By 

John J. Kim  
Managing Attorney  
Air Regulatory Unit  
Division of Legal Counsel

DATED: March 13, 2006

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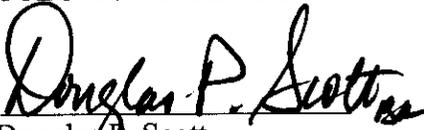
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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
PROPOSAL OF REGULATIONS

The Illinois Environmental Protection Agency moves that the Illinois Pollution Control Board adopt the attached regulations.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By:   
Douglas P. Scott  
Director

DATED: 3/13/06

1021 North Grand Avenue East  
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### STATEMENT OF REASONS

#### I. INTRODUCTION

The Illinois Environmental Protection Agency ("Illinois EPA") submits this Statement of Reasons to the Illinois Pollution Control Board ("Board") pursuant to Sections 9.10, 27, and 28.5 of the Environmental Protection Act ("Act") (415 ILCS 5/9.10, 27, and 28.5) and 35 Ill. Adm. Code 102.302 in support of the proposed new 35 Ill. Adm. Code Part 225, Control of Emissions from Large Combustion Sources. These regulations are proposed to control mercury emissions from coal-fired electric generating units ("EGUs") beginning in July 2009.

This proposed rulemaking is intended to meet certain obligations of the State of Illinois under the federal Clean Air Act ("CAA"), 42 U.S.C. § 7401 *et seq.*; specifically, to satisfy Illinois' obligation to submit a State Implementation Plan ("SIP") to address the requirements of the Clean Air Mercury Rule ("CAMR"), *see*, 70 *Fed. Reg.* 28606 (May 18, 2005), and to meet the applicable requirements of Section 9.10 of the Act. This proposal addresses the serious deficiencies present in the CAMR. Specifically, the unnecessary delay in achieving mercury emission reductions, the inherent concerns associated with a cap and trade program to control a persistent, bioaccumulative toxin, the inadequate mercury reductions contained in the CAMR, and the legal basis upon which the CAMR was adopted.

Included in this proposal are proposed new rules, 35 Ill. Adm. Code Part 225, Control of Emissions from Large Combustion Sources.

## **II. STATEMENT OF FACTS**

### **A. Mercury in the Environment**

Mercury is a naturally occurring trace element found in the environment. *See, Fossil Fuel-Fired Power Plants: Report to the House and Senate Environment and Energy Committees*, IEPA/BOA/04-020, Illinois Environmental Protection Agency, September 2004, at 3 ("*Section 9.10 Report*") (attached). It is also a pollutant that is released to the environment by human (anthropogenic) activities, including coal-fired power plants. *Id.* Although mercury is not a criteria pollutant for which USEPA has established a National Ambient Air Quality Standard ("NAAQS"), it is a hazardous air pollutant ("HAP") and has adverse health impacts. *See, Technical Support Document for Reducing Mercury Emissions from Coal-Fired Electric Generating Units*, AQPSTR 06-02, Illinois Environmental Protection Agency, March 14, 2006 ("TSD").

Emissions of mercury occur in three distinct forms: ionic, elemental, and particulate. Ionic and particulate forms of mercury compounds have the greatest impact on near-field deposition. *70 Fed. Reg.* 28619 (May 18, 2005). Generally speaking, since these forms of mercury are water soluble, they are more readily controlled than elemental mercury. *Id.*

It is not the inhalation of mercury that is the predominant public health concern for emissions of mercury, but the eventual deposition of such mercury on the land and into the waters of Illinois that concerns health officials. *Section 9.10 Report* at 3. Over 50% of the mercury entering many bodies of water, including Lake Michigan, comes from air deposition. *Id.* Once in water, some mercury is transformed into methylmercury through

biological processes. 70 *Fed. Reg.* 28640 (May 18, 2005). Methylmercury, a highly toxic form of mercury, is the mercury compound of concern for the health effects of mercury. *Id.* Once mercury has been transformed into methylmercury, it can be ingested by the lower trophic level organisms where it bioaccumulates in fish tissue (i.e., concentrations in predatory fish build up over the fish's entire lifetime, accumulating in the fish tissue as predatory fish consume other species in the food chain). *Id.* Therefore, fish and wildlife at the top of the food chain can have mercury concentrations that are higher than the lower species, and concentrations of mercury many times higher than that of the water body itself. *Id.* As such, the most common route of exposure to mercury for humans and wildlife is through the consumption of mercury contained in their food supply. *Id.*

When humans consume fish containing methylmercury, the ingested methylmercury is almost completely absorbed into the blood and distributed throughout the tissues of the body. *Id.* In pregnant women, methylmercury can be passed on to the developing fetus, and at sufficient exposure may lead to a number of neurological effects. *Id.* Thus, children who are exposed to even low concentrations of methylmercury prenatally may be at increased risk of poor performance on neurobehavioral tests, such as those measuring attention, fine motor function, language skills, visual-spatial abilities, and verbal memory. *Id.* The effects from prenatal exposure can occur even at doses that do not result in effects in the mother. *Id.* Mercury contamination of Illinois waters has resulted in fish consumption advisories being issued for every body of water in the State. *Section 9.10 Report* at 4. A more comprehensive discussion of mercury deposition and its effects on human health is set forth in the TSD.

## **B. Mercury under the Clean Air Act**

Mercury is listed as a HAP under Section 112(b) of the CAA. 42 U.S.C. § 7412(b). Section 112 requires the USEPA to establish Maximum Achievable Control Technology ("MACT") standards, which are applicable to both new and existing sources, for various categories of sources. The stringent system of emissions controls encompassed under the MACT provisions is intended to ensure control technology is used to minimize emissions of HAPs from significant sources of HAPs.

Under Section 112(n)(1)(A) of the CAA, USEPA was directed to conduct a study of electric utility boilers to assess the hazards to public health from their emissions of HAPs. 42 U.S.C. § 7412(n)(1)(A). USEPA submitted such study to Congress in 1998. *Mercury Study Report to Congress*, Volumes I through VIII, EPA-452/R-97-003 through 010, December 1997.

On December 20, 2000, USEPA issued a finding under Section 112(n)(1)(A) of the CAA that it was appropriate and necessary to regulate coal and oil-fired utility boilers under Section 112 ("Regulatory Finding").<sup>1</sup> *See*, 65 *Fed. Reg.* 79825 (May 18, 2005). USEPA concluded that this affirmative determination under Section 112(n)(1)(A) of the CAA constituted a decision to list coal and oil-fired utility units on the Section 112(c) source category list. *Id.* at 79830. Relying on Section 112(e)(4) of the CAA, the USEPA explained in its December 2000 Regulatory Finding that neither its finding under Section 112(n)(1)(A) of the CAA, nor the associated listing were subject to judicial review at that time. *Id.* at 79831. USEPA did not add natural-gas fired units to the Section 112(c) list in December 2000 because it did not make a positive appropriate and necessary finding for such units. *Id.*

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<sup>1</sup> As discussed *infra*, on March 29, 2005, the USEPA revised this December 2000 Regulatory Finding and concluded that it is neither appropriate nor necessary to regulate coal and oil-fired EGUs under Section 112 of the CAA. 70 *Fed. Reg.* 15994.

**C. Section 9.10 of the Act**

All water bodies in Illinois are contaminated with mercury to such an extent that fish consumption advisories are in effect. *Section 9.10 Report* at 4. These advisories establish specific recommendations for the maximum amount of different types of fish that individuals consume. Responding to these circumstances and other concerns about mercury emissions, the General Assembly adopted Section 9.10 of the Act, requiring the Illinois EPA to study and issue findings on the potential need for the control or reduction of mercury emissions, along with other pollutants, from fossil-fuel fired electric generating plants. 415 ILCS

5/9.10. Section 9.10(b) of the Act states, in part, as follows:

(b) Taking into account the findings and declarations of the General Assembly...the Agency shall...issue to the House and Senate Committees on Environment and Energy findings that address the potential need for the control or reduction of emissions from fossil fuel-fired electric generating plants, including the following provisions:

\* \* \*

(4) reduction of mercury as appropriate, consideration of the availability of control technology, industry practice requirements, or incentive programs, or some combination of these approaches that are sufficient to prevent unacceptable local impacts from individual facilities and with consideration of the developments in federal law and regulations that may affect any state action, prior to making final decisions in Illinois; and

\* \* \*

415 ILCS 5/9.10(b). Furthermore, Section 9.10(c) states, in pertinent part, the following:

(c) Nothing in this Section is intended to or should be interpreted in a manner to limit or restrict the authority of the Illinois Environmental Protection Agency to propose, or the Illinois Pollution Control Board to adopt, any regulations applicable or that may become applicable to the facilities covered by this Section that are required by federal law.

415 ILCS 5/9.10(c).

Accordingly, in September 2004, the Illinois EPA published the *Section 9.10 Report* entitled "*Fossil Fuel-Fired Power Plants: Report to the House and Senate Environment and Energy Committees.*" The *Section 9.10 Report* indicated that control of mercury emissions was necessary; however, the specific level of control was not delineated. The *Section 9.10 Report* concluded, in part, as follows:

Illinois EPA believes that independent, full and complete economic assessments should be performed on the full economic impacts in Illinois of the final CAIR [Clean Air Interstate Rule] proposal, the Mercury Reduction Rule, the Carper and Jeffords Bills, and any others that surface in the next several months. The impact to Illinois' coal jobs and power industry jobs must be fully understood. Certainly, with the deregulated electricity market that exists in Illinois, the cost impacts on generation and, ultimately, to Illinois citizens and businesses needs [sic] to be fully understood. Such assessments can only be properly performed once certainty exists at the federal level. These cost analyses will be vital in fully assessing the appropriate timing and scope of additional emission reductions from power plants in Illinois.

*Section 9.10 Report* at 70.

As can be seen from the above passages, several bills and rules were being discussed at the national level, each of which would have had different impacts on the State of Illinois. Quite reasonably, the Illinois EPA chose to wait and observe the action in Congress before proceeding with a rulemaking proposal for the State of Illinois. However, even in September 2004, the Illinois EPA realized that there might be a need for additional reductions from coal-fired power plants in Illinois.

#### **D. The Clean Air Mercury Rule**

##### **1. Background**

On January 30, 2004, the USEPA published a notice of proposed rulemaking entitled "Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units." 69 *Fed. Reg.* 4652. In the proposed rulemaking, USEPA set forth

three alternative regulatory approaches. USEPA proposed: (1) to retain the December 2000 Regulatory Finding and associated listing of coal and oil-fired utility units and to issue rules requiring MACT for emissions of HAPs from such units; (2) to revise the December 2000 Regulatory Finding by removing coal and oil-fired utility units from the Section 112(c) list and to issue final standards of performance under Section 111 of the CAA for new and existing coal-fired units for emissions of mercury and new and existing oil-fired units for emissions of nickel; or (3) to retain the December 2000 Regulatory Finding by regulating mercury emissions from utility units under Section 112(n)(1)(A) of the CAA. *Id.*

Shortly thereafter, on March 16, 2004, the USEPA published a supplemental notice of proposed rulemaking entitled "Supplemental Notice of Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units." 69 *Fed. Reg.* 12398. In that notice, the USEPA proposed certain additional regulatory text, which largely governed the proposed Section 111 standards of performance for mercury and included a cap and trade program. The supplemental notice also proposed state plan approvability criteria and a model cap and trade rule for mercury emissions from coal-fired utility units. *Id.*

In response to the Mercury Proposal and the Supplemental Notice, the Illinois EPA submitted comments on these rulemakings, which stated that Illinois is very committed to substantially reducing mercury in the environment, and the State is aggressively encouraging clean-coal technology that will allow Illinois' abundant coal reserves to be used in an environmentally responsible manner. In those comments, the Illinois EPA made the following key points:

Mercury is a highly toxic pollutant that needs to be regulated. Mercury is a powerful neurotoxin that accumulates in the food chain and can cause damage to the brain and nervous system when ingested, and is particularly harmful to developing fetuses and young children. In fact, because of methylmercury contamination, all of Illinois' waterbodies have fish consumption advisories due to elevated concentrations of mercury in predator fish.

Mercury from power plants must be regulated under section 112(d) of the Clean Air Act (CAA), and as such, the mercury emissions from the power plants must be subject to a Maximum Available Control Technology (MACT) standard. Therefore, USEPA's rule, which regulates those sources under section 111, is inappropriate and represents an unnecessary legal risk which may further delay the implementation of controls. USEPA chooses to interpret part of the language in section 112(n), requiring U.S. EPA to evaluate "alternative control strategies," to justify an approach to regulation of hazardous air pollutants (HAPs) from EGUs other than a listing under section 112(c), standard setting under section 112(d), and compliance deadlines established under section 112(g). USEPA did not provide legislative history or case law that would support such an approach or interpretation.

Under CAA section 112(d), the mercury limits must be more stringent than set forth in the Mercury Proposal or Supplemental Notice, and as finally adopted by CAMR. CAMR requires an interim emissions cap of 38 tons per year to be achieved by 2010 that does not require any additional control of mercury beyond the co-benefits expected from the Clean Air Interstate Rule (CAIR). The interim cap for mercury is wholly dependent upon CAIR, and does not require any other control measures specifically designed to address hazardous air pollutant emissions. The national emissions cap of 38 tons per year is clearly not consistent with the legislative mandate for calculating MACT under section 112. We believe the Clean Air Act is clear that USEPA should determine MACT for existing sources on the average of the top 12 percent of sources.

Any mercury rule for power plants must be fuel neutral, without favoring coal from any particular region of the country, and thus there should be a common standard for bituminous and subbituminous coal. The proposed limits for subbituminous coal are so lax that they are tantamount to no control. Illinois is concerned that facilities may switch from bituminous to subbituminous coal or blend their fuels simply to escape stricter controls. The result would be higher emission limits and greater emissions of mercury.

We oppose emissions trading of mercury allowances unless each affected unit involved in a trade can demonstrate that mercury hot spots are prevented. USEPA has not evaluated or addressed whether trading could lead to local "hotspot" problems in the vicinity of electric utilities that purchase allowances rather than installing controls to comply.

Mercury emission reductions can and should occur by 2010, and section 112 of the Clean Air Act has sufficient provisions to accommodate this timeframe. USEPA gave insufficient support for its extended compliance deadline of 2018, which it has acknowledged, based on banking and trading. Elements of the trading program could extend out to 2025 or 2030. Based on the Florida Everglades experience in which stringent controls were applied to incineration sources in the 1990s resulting in a steep decline in fish tissue levels of mercury within less than a decade, we can conclude that the quicker we start a reduction program, the quicker the risk to our citizens can be reduced. A 2018 compliance date is far too late for Illinois to use the federal mercury rule as part of a plan to restore an impaired waterbody under the Clean Water Act, and we would be looking at 2028 before substantial fish tissue reductions could occur in the best of cases. That's 25 years before a current public health risk even begins to resolve, and that's too long.

Comments of the Illinois Environmental Protection Agency on the January 30, 2004, Notice of Proposed Rulemaking and the March 16, 2004, Supplemental Notice of Proposed Rulemaking, Docket No. OAR-2002-0056, April 22, 2004.

On March 29, 2005, the USEPA promulgated a final rule entitled "Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units From the Section 112(c) List" ("Delisting Action"). 70 Fed. Reg. 15994. In this final rule, USEPA revised the December 2000 appropriate and necessary finding and concluded that it is neither appropriate nor necessary to regulate coal and oil-fired utility units under Section 112 of the CAA.<sup>2</sup>

On May 18, 2005, this was followed by promulgation of CAMR. *See*, 70 Fed. Reg. 28606 (*See*, copy attached). CAMR included standards of performance for mercury for new

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<sup>2</sup> Along with the CAMR, the Delisting Action is currently being challenged by a number of Petitioners in the United States Court of Appeals for the District of Columbia Circuit. *See*, *State of New Jersey, et al. v. United States Environmental Protection Agency*, No. 05-1097 and consolidated cases. The State of Illinois filed its own Petitions challenging the CAMR and the Delisting Action; however, these cases were consolidated with *State of New Jersey* and the other consolidated cases. In addition, the USEPA granted reconsideration of certain aspects of the CAMR and the Delisting Action as a result of receiving Petitions for Reconsideration. *See*, 70 Fed. Reg. 62200 and 62213 (October 28, 2005). Both challenges have been consolidated, and the proceedings are being held in abeyance pending completion of the USEPA's reconsideration proceedings, which the USEPA anticipates completing by May 31, 2006. Per Curiam Order, December 8, 2005 (*See*, copy attached).

and existing coal-fired electric utility steam generating units. *Id.* CAMR utilizes a market based cap and trade approach under Section 111 of the CAA to reduce emissions of mercury from these units. 42 U.S.C. § 7411. Section 111(d) of the CAA authorizes USEPA to promulgate standards of performance that states must adopt through a SIP. Under CAMR, states are required to submit SIPs to the USEPA by no later than November 17, 2006. *See*, 70 *Fed. Reg.* 28649; 40 CFR § 60.24(h)(2).

In CAMR, USEPA established an annual budget for mercury emissions from coal-fired electrical generating units for each state for 2010 and thereafter. *See*, 70 *Fed. Reg.* 28649-50. Each state's plan under the CAMR must contain appropriate control requirements and compliance procedures to assure compliance with the state's annual mercury budget by the specified dates. *Id.* However, "States remain authorized to require emissions reductions beyond those required by the State Budget," and nothing in the CAMR "will preclude the States from requiring such stricter controls and still being eligible to participate" in the mercury trading program. *Id.* at 28632. These provisions evidence the USEPA's intent that a program of "cooperative federalism" be maintained between the Federal government and the States for the control of mercury, whereby the States would be allowed, within the bounds established by minimum federal programs, to enact and administer their own regulatory programs. *Hodel v. Virginia Surface Mining and Reclamation Association, Inc.*, 452 *U.S.* 264, 289, 101 *S.Ct.* 2352, 2366-2367 (1981).

## **2. Deficiencies in CAMR**

The Illinois EPA determined then, and now, that CAMR will not result in sufficient reductions of mercury in a timely manner, and that CAMR will impede its efforts to encourage clean-coal technology that will allow Illinois' abundant coal reserves to be used in

an environmentally responsible manner. As demonstrated in Section 8 of the TSD, 90% reduction of mercury from coal-fired power plants is achievable today with the application of available technology at a cost that is economically reasonable and that will not significantly impact electricity rates in Illinois.

For these reasons, the Illinois EPA requested that the Illinois Attorney General's Office file an appeal of CAMR and the Delisting Action. On May 27, 2005, the State of Illinois filed Petitions for Review with the United States Court of Appeals for the District of Columbia Circuit challenging both rules. *See, State of Illinois v. Environmental Protection Agency*, Nos. 05-1174 and 05-1189 (D.C. Cir.). These cases were consolidated with the other challenges.

**a. Cap and Trade Program vs. MACT Standard**

First, the decision to regulate mercury emissions from coal-fired utility boilers under Section 111 of the CAA, rather than Section 112, is legally deficient. All HAPs are regulated under Section 112. 42 U.S.C. § 7412. Regulation under Section 111(d) is inconsistent with the structure of the CAA. USEPA constructs an elaborate interpretation that allows it to promulgate a trading program under Sections 111(d) and 112(n); however, neither section provides specific authority for promulgating a trading program. Sections 111(b)(1)(B) and (d) and Section 112(d) require USEPA to promulgate either a performance standard or an emission standard. A performance standard, as defined by Section 111(a)(1) of the CAA, means an emissions standard that reflects the best system of reduction. An emissions standard under Section 112(d)(2) is required to reflect the maximum degree of reduction that is achievable (MACT). A trading program does not, by its very structure, require a source to achieve any particular level of emissions reduction.

The virtue of the MACT standards under Section 112 is that they ensure that applicable sources use appropriate technology to minimize HAP emissions. The MACT process also contains provisions for the review of emission standards to allow for periodic updating based upon technological advances. *Id.* CAMR does not contain such a process. Although more than 40% of all anthropogenic mercury emissions in the United States come from coal-fired power plants, the CAMR removes such sources from the continued oversight provided by Section 112 of the CAA. See, TSD, Figure 2.2, at 30. In place of a MACT standard, CAMR creates a new structure to control mercury emissions from coal-fired power plants under Section 111 of the CAA, the New Source Performance Standards ("NSPS").

USEPA begins by establishing a performance standard for new coal-fired utility boilers and then finds itself required under Section 111 to establish such a standard for existing coal-fired utility boilers. The centerpiece of this scheme for existing units is a cap and trade program. As their name implies, cap and trade programs set a "cap" or ceiling on emissions of a pollutant. The cap is translated into allowances that represent given quantities of the pollutant. Under CAMR, one allowance equals one ounce of mercury. The allowances in an amount equal to the cap are distributed to affected sources. Following the end of each year or other applicable compliance period, sources must hold and turn in allowances to cover their actual emissions. Prior to this periodic reconciliation, sources and other parties are authorized to enter into transactions, and to transferring their allowances from the accounts for one source or party to the account of another.

Under this arrangement, all sources are not actually required to reduce emissions. Rather, a cap and trade program achieves an overall reduction in emissions. Emission reductions occur at certain sources that, due to their particular circumstances and control

measures, emit less of the pollutant and need fewer allowances than they have received. Such sources can then sell these surplus allowances to other sources that need additional allowances for their emissions. The market will thus decide at which sources reductions in the emissions of the pollutant will occur.

Unfortunately, for mercury, a cap and trade program can also result in the perpetuation of "hot spots." There are several uses of the term "hot spots" in the literature addressing mercury emissions with no known established definition. A common use of the term "hot spots" is to define areas that show up on mercury deposition maps with higher mercury concentrations. The term is also used to define areas in a cap and trade program where reductions are less likely to occur due to allowances being purchased or use of banked allowances in order to avoid mercury reductions and installation of mercury controls. In these areas, the reduction program has less direct benefits for people living in the surrounding area.

This scenario has not been a great problem for cap and trade programs in the past because of the pollutants at issue and the environmental problem that was being addressed, such as the Acid Rain Program. However, hot spots are a concern for emissions of mercury and its effects.

#### **b. Implementation Schedule**

A second issue with the CAMR is that the actual program is phased in slowly. The first phase begins in 2010 and is expected to reduce mercury emissions by only 20% from 1999 baseline emissions. 70 *Fed. Reg.* 28619. This reduction, however, was chosen solely because it is the mercury emission reduction expected as a co-benefit from other federal programs. *Id.* at 28618. Incredibly, CAMR does not actually require any mercury specific

action for coal-fired power plants until 2018. At that date, the cap for mercury emissions from the power plants is expected to be 69% below the 1999 baseline year. *Id.* at 28619. However, since CAMR allows the "banking" of mercury allowances before 2018, the 69% reduction is not expected to actually be achieved until later--USEPA's own modeling for CAMR only projects a 50% reduction by 2020 from the 1999 baseline year. *Id.* By comparison, the Illinois EPA's proposal is based upon implementation of control measures for mercury emissions from affected sources beginning in mid-2009. This disparity in timing is attributable to the USEPA's assertion that mercury control technology is not yet mature, despite testing of sorbent injection systems that demonstrate such technology already exists and is economically reasonable. *Id.*

**c. Disjoint in Regulatory Control Methods**

CAMR also creates a logical paradox. Mercury is still a HAP for which an emission standard must be established under Section 112 of the CAA for fuel combustion sources, unless it is emitted from a coal-fired EGU, because such units have been removed from the Section 112(c) list. Thus, only when mercury is emitted from the largest manmade source of such emissions in the United States is it not regulated under Section 112 of the CAA. Mercury emissions from other, smaller sources are still subject to a MACT standards under Section 112. *70 Fed. Reg.* 76918 (December 28, 2005), 40 CFR Part 63, Subpart DDDDD.

**E. The Illinois EPA's Regulatory Proposal**

The Illinois EPA deems that the optimum method to comply with the federal requirements under the CAMR, and protect the health of Illinois citizens, is to adopt mercury emission standards for coal-fired power plants in Illinois. Generally, this proposal allows the owners or operators of such EGUs the option of complying with one of two mercury

emission standards, which are discussed in detail *infra*, that reduce emissions more rapidly than the CAMR and for which the trading of mercury allowances is not allowed. The Illinois EPA's proposal requires technology to be used to achieve a 90% reduction in mercury emissions, while providing reasonable flexibility to the owners or operators with EGUs in achieving those reductions.

In addition, the Office of Inspector General of USEPA reported that "[e]vidence indicates that EPA senior management instructed EPA staff to develop a MACT standard for mercury that would result in national emissions of 34 tons annually, instead of basing the standard on an unbiased calculation of what the top performing units were achieving in practice." *See, Additional Analyses of Mercury Emissions Needed Before EPA Finalizes Rules for Coal-Fired Electric Utilities*, Report No. 2005-P-00003, Office of Inspector General, United States Environmental Protection Agency, February 3, 2005. The Office of Inspector General's Report further states:

Because the results of the MACT standard were prescribed and prior estimates were lower than what was proposed, we believe it likely that the standard understates the average amount of mercury emissions reductions achieved by the top performing 12 percent of power units. Some Agency officials told us that, in their opinion, the true MACT floor would result in lower mercury emissions than the 34 [further weakened to 38 tons in the final rule] tons estimated from current MACT floor limits. Therefore, if this proposed MACT standard was adopted, it would not achieve the maximum emission reductions achievable and the associated health benefits. Further, this MACT standard, as proposed, does not provide a reasonable basis for comparison in determining which of EPA's two proposed regulatory alternatives (i.e., the MACT standard or the mercury cap-and-trade program) provides the better cost-benefit.

*Id.*

The Report also attacked USEPA's cap and trade program as follows:

EPA's mercury cap-and-trade proposal – a nationwide emissions trading program for an air toxic – can be strengthened to better ensure that human health is protected and that anticipated emission reductions are achieved, should this approach to reducing mercury emissions be adopted.

*Id.* at 18. The Report identified four areas of concern: (1) The interim cap (2010) could be tightened to force earlier development of mercury-specific control technology; (2) USEPA had not fully analyzed the potential for hot spots; (3) The safety valve provisions might not encourage reductions (not included in final rule); and (4) The small emitters exemption needed to be clarified. *Id.* at 19-23. As can be seen from the above excerpts, USEPA's internal Inspector General questioned USEPA's management decisions in developing CAMR.

Numerous other states have determined that the provisions of the CAMR are insufficient. Currently, 15 other states have adopted or are considering state-specific mercury plans. *Argus Air Daily*, Volume 13, 036, February 23, 2006 (*See*, copy attached). Connecticut, Massachusetts, New Jersey, and Wisconsin already have state-specific plans in place. *Id.* Florida, Georgia, Maryland, Michigan, Minnesota, Montana, New Hampshire, New York, North Carolina, Pennsylvania, and Virginia all have announced proposals, regulatory actions or have legislation pending. *Id.* and *Department of Environmental Protection, Division of Air Resource Management, Clean Air Mercury Rule (CAMR) Preliminary Proposal*, March 2, 2006 (*See*, copy attached). In addition, the State and Territorial Air Pollution Program Administrators ("STAPPA") and Association of Local Air Pollution Control Officials ("ALAPCO"), a national organization whose members have the primary responsibility for implementing the nation's air pollution control laws and regulations, issued a model

rule that requires sources to use control technology to reduce inlet mercury by 90 to 95% or meet an alternative output-based emission standard by 2012 without trading, while allowing for limited averaging throughout the state. *Regulating Mercury from Power Plants: A Model Rule for States and Localities*, STAPPA/ALAPCO, November 2005 (See, copy attached). Accordingly, the Illinois EPA's regulatory proposal is consistent with the concerns of a multitude of other states.

### **III. SECTION 28.5 OF THE ACT**

This regulatory proposal is properly submitted to the Board under Section 28.5 of the Act as a "fast-track" rulemaking proceeding. Section 28.5 of the Act "shall apply solely to the adoption of rules proposed by the Agency and required to be adopted by the State under the Clean Air Act as amended by the Clean Air Act Amendments (CAAA)." 415 ILCS 5/28.5(a). Other requirements for a proposal satisfying the criteria for a fast-track rulemaking are as follows:

For purposes of this Section, a 'fast-track' rulemaking proceeding is a proceeding to promulgate a rule that the CAAA requires to be adopted. For purposes of this Section, 'requires to be adopted' refers only to those regulations or parts of regulations for which the United States Environmental Protection Agency is empowered to impose sanctions against the State for failure to adopt such rules.

415 ILCS 5/28.5(c). Furthermore, Section 28.5(d) provides, "When the CAAA requires rules other than identical in substance rules to be adopted, upon request by the Agency, the Board shall adopt rules under fast-track rulemaking requirements." 415 ILCS 5/28.5(d).

In short, in order for the Board to accept proposed rules as a fast-track rulemaking, the proposal must meet three prerequisites: (1) It must be for rules that are required to be adopted by the State under the CAAA; (2) It must be for rules for which the USEPA is

empowered to impose sanctions against the State for failure to adopt such rules; and (3) It must be for rules other than "identical in substance" rules.

**A. CAAA Requirement**

Illinois EPA's regulatory proposal to control mercury emissions from coal-fired EGUs in Illinois is clearly required to be adopted by the CAA. CAMR was promulgated under Section 111(d) of the CAA. If a state fails to submit a satisfactory plan as required under CAMR, USEPA will prescribe a Federal plan pursuant to its authority under Section 111(d)(2)(A) of the CAA. 70 *Fed. Reg.* 28632. Accordingly, Illinois EPA's regulatory proposal is clearly required to be adopted under the CAA.

Illinois EPA's regulatory proposal imposes standards stricter than the CAMR, as discussed in detail *infra*; however, this fact is inconsequential when interpreting the provisions encompassing "requires to be adopted." USEPA, under CAMR, specifically envisions that states may adopt stricter requirements when it specifies that "States remain authorized to require emissions reductions beyond those required by the State budget," and nothing in the CAMR "will preclude the States from requiring such stricter controls and still being eligible to participate" in the mercury trading program. 70 *Fed. Reg.* 28632. The only conclusion that can be drawn from these provisions is that the adoption of an approvable state rule that is no less stringent than CAMR will satisfy the State's obligations under CAMR.

Moreover, USEPA asserts, "The State budgets are not an independently enforceable requirement. Rather, each State must impose control requirements that the State demonstrates will limit Statewide emissions from affected new and existing sources to the amount of the budget. Consistent with CAIR [Clean Air Interstate Rule], EPA is finalizing

that States *may* meet their Statewide emission budget by allowing their sources to participate in a national cap-and-trade program." (Emphasis added). *Id.* The focus of the federal requirements is not enacting the cap and trade program, which is merely optional, but lowering mercury emissions from coal-fired power plants so as to provide that the overall national budget will not be exceeded. USEPA further states, "Additionally, States may incorporate a mechanism for implementing more stringent controls at the State level within their allowance allocation methodology." *Id.*

Again, CAMR specifically authorizes states to distribute mercury allowances in a more restrictive manner than suggested within its framework. Accordingly, the federal requirement under CAMR on Illinois and other states is to enact a rule governing mercury emissions from coal-fired EGUs, while keeping mercury emissions from coal-fired power plants within the State's annual budget. Nothing in CAMR suggests that imposing requirements beyond the budget is not commensurate with the spirit or letter of CAMR.

Due to the fact that CAMR envisions states requiring greater reductions than the state budgets require and provides the ability for states to reduce mercury emissions beyond the minimum required by the rule, the regulatory proposal will not exceed CAMR requirements. Illinois EPA has proposed its own strategy, but the effects are those envisioned under CAMR. If Illinois takes advantage of the flexibility that CAMR inherently allows, it cannot be said to be exceeding that which is federally required.

Section 111(d) of the CAA requires all states to adopt plans that establish standards of performance for any existing source to which a standard of performance under Section 111 of the CAA would apply if the source were a new source. 42 U.S.C. § 7411(d). On May 18, 2005, USEPA promulgated CAMR under Section 111(d) of the CAA. Illinois EPA's

proposed rule will satisfy the requirements set forth by USEPA in CAMR, thereby meeting the CAA's underlying requirement that such a rule (i.e., either CAMR or an approvable State rule) be in effect.

**B. USEPA Sanctions**

As stated *supra*, under CAMR, states are required to submit SIPs to USEPA by no later than November 17, 2006. Accordingly, if Illinois fails to timely submit a SIP, USEPA has the authority to impose sanctions under the principle of "cooperative federalism" program. *Hodel*, 452 U.S. at 289, 101 S.Ct. at 2366-2367; *Virginia v. Browner*, 80 F.3d 869, 883 (4<sup>th</sup> Cir. 1996). As part of a program of cooperative federalism in which States are allowed to enact and administer programs that meet minimum federal requirements, there are certain "inducements" that are available to the Federal government. The sanctions provided for in the CAA are examples of such inducements. *Virginia*, 80 F.3d at 881. One sanction that may be imposed upon Illinois in the present situation is a reduction in the grant that Illinois receives under Section 105 of the CAA to administer programs required by the CAA. 42 U.S.C. § 7405. The use by the Federal government of the "power of the purse" is a recognized sanction. *New York v. United States*, 505 U.S. 144, 167, 112 S.Ct. 2408, 2423 (1992); *Virginia*, 80 F.3d at 873-874 and 881-882.

Further, USEPA has the authority under the following to prescribe a Federal plan:

- (2) The Administrator shall have the same authority--
  - (A) to prescribe a plan for a State as he would under section 110(c) in the case of failure to submit an implementation plan...

42 U.S.C. § 7411(d)(2)(A). Section 110(c) of the CAA provides:

- (c)(1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator--

(A) finds that a State has failed to make a required submission...

42 U.S.C. § 7410(c)(1)(A). If Illinois fails to submit a plan by November 17, 2006, USEPA has the authority to prescribe a plan for Illinois. CAMR provides, in pertinent part, as follows:

If a State fails to submit a State plan as proposed to be required in the final rule, EPA will prescribe a Federal plan for that State, under CAA section 111(d)(2)(A). EPA proposes today's model rule as that Federal plan.

70 *Fed. Reg.* 28606, 28632.

Just as the ability to reduce grant funding equates to a sanction, so too would the imposition of a Federal plan be a sanction. *Virginia*, 80 *F.3d* at 874-875 and 882-883. The State's authority to implement the most appropriate control measures would be constrained, and USEPA would have the authority to reduce the funding that Illinois EPA receives to administer various CAA programs.

Consistent with the previously cited case law, the Board has previously recognized that imposition of a Federal plan is a sanction and for such reason has adopted regulations under Section 28.5 of the Act. The Board has specifically adopted regulations under the authority of Section 111(d) of the CAA as warranting the utilization of Section 28.5 of the Act. Both R98-28, *In the Matter of: Municipal Solid Waste Landfills - Non-Methane Organic Compounds* 35 *Ill. Adm. Code* 201.103, 201.146, and Part 220, and R99-10, *In the Matter of: Hospital/Medical/Infectious Waste Incinerators Adoption of* 35 *Ill. Adm. Code* 229, were based upon the authority of Section 111(d) of the CAA and the Board adopted these regulations under the provisions of Section 28.5 of the Act. In R98-28, the Board specifically ordered, in pertinent part:

Section 28.5 authorizes the Board to adopt via a 'fast-track' procedure certain regulations necessary for compliance with the CAA. The United States

Environmental Protection Agency (USEPA) has established July 31, 1998, as the deadline for implementation of the instant rules in Illinois.<sup>3</sup>

Additionally, the Board has adopted numerous regulations based upon other authority under the CAA and under the provisions of Section 28.5 of the Act.<sup>4</sup>

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<sup>3</sup> See, R98-28, In the Matter of: Municipal Solid Waste Landfills - Non-Methane Organic Compounds 35 Ill. Adm. Code 201.103, 201.146, and Part 220, Final Order at 1 (June 17, 1998).

<sup>4</sup> See, In the Matter of: Amendments to the New Source Review Rules 35 Ill. Adm. Code 203, R92-21 April 30, 1993; In the Matter of: Omnibus Cleanup of the Volatile Organic Material RACT Rules Applicable to Ozone Nonattainment Areas: Amendments to 35 Ill. Adm. Code Parts 203, 211, 218 and 219, R93-9 September 27, 1993; In the Matter of: Reasonable Available Control Technology for Major Sources Emitting Volatile Organic Materials in the Chicago Ozone Nonattainment Area: 25 Tons (Amendments to 35 Ill. Adm. Code Parts 211 and 218), R93-14 January 24, 1994; In the Matter of: Categories of Insignificant Activities or Emission Levels at a CAAPP Source (Amendments to 35 Ill. Adm. Code 201 and 211), R94-14, October 17, 1994; In the Matter of: 15% ROP Plan Control Measures for VOM Emissions-Part II Marine Vessel Loading: Amendments 35 Ill. Adm. Code Parts 211, 218 and 219, R94-15, October 25, 1994; In the Matter of: 15% ROP Plan Control Measures for VOM Emissions - Part III: Air Oxidation and Organic Emissions from Storage and Loading Operations: Amendments to 35 Ill. Adm. Code 211, 218 and 219, R94-16 November 15, 1994; In the Matter of: 15% ROP Plan Control Measures for VOM Emissions-Part IV: Tightening Surface Coating Standards; Surface Coating of Automotive Transportation and Business Machine Plastic Parts; Wood Furniture Coating; Reactor Processes and Distillation Operation Processes in SOCM; and Bakery Ovens; Amendments to 35 Ill. Adm. Code Parts 211, 218 and 219, R94-21 May 9, 1995; In the Matter of: 15% ROP Plan Control Measures for VOM Emissions - Part V: Control of Volatile Organic Compound Emissions from Lithographic Printing: Amendments to 35 Ill. Adm. Code Parts 211, 218, and 219, R94-31 May 9, 1995; In the Matter of: 15% ROP Plan Control Measures for VOM Emissions - Part VI: Motor Vehicle Refinishing: Amendments to 35 Ill. Adm. Code 211, 218 and 219, R94-32 May 9, 1995; In the Matter of: 15% ROP Plan Control Measures for VOM Emissions - Part VII: Batch Operations: Amendments to 35 Ill. Adm. Code Parts 211, 218 and 219, R94-33 May 22, 1995; In the Matter of: Clean Fuel Fleet Program: Proposed 35 Ill. Adm. Code 241, R95-12 September 11, 1995; In the Matter of: 15% ROP Plan: Clean-Up Part I - Amendments to 35 Ill. Adm. Code 219.585(A) and 219.Appendix E, R96-2 February 15, 1996; In the Matter of: Visible and Particulate Matter Emissions-Conditional Approval and Clean Up Amendments to 35 Ill. Adm. Code Parts 211 and 212, R96-5 May 22, 1996; In the Matter of: 15% ROP Plan: Clean-Up Part II: Amendments to 35 Ill. Adm. Code Parts 218 and 219, R96-13 October 17, 1996; In the Matter of: 9% ROP Plan Control Measures for VOM Emissions-Tightening Cold Cleaning Requirements: Amendments to 35 Ill. Adm. Code 211, 218 and 219, Subpart E, R97-24 June 9, 1997; In the Matter of: Major Stationary Sources Construction and Modification (New Source Review Rules): Amendments to 35 Ill. Adm. Code 203, R98-10 March 10, 1998; In the Matter of: Enhanced Vehicle Inspection and Maintenance (I/M) Regulations: Amendments to 35 Ill. Adm. Code 240, R98-24 July 13, 1998; In the Matter of: Proposed New 35 Ill. Adm. Code 217, Subpart W, The NO<sub>x</sub> Trading Program for Electrical Generating Units, and Amendments to 35 Ill. Adm. Code 211 and 217, R01-9 December 26, 2000; In the Matter of: Proposed New 35 Ill. Adm. Code 217. Subpart T, Cement Kilns, and Amendments to 35 Ill. Adm. Code 211 and 217, R01-11 March 15, 2001; In the Matter of: Proposed Amendments to 35 Ill. Adm. Code 217.Subpart V, Electric Power Generation, R01-16 April 17, 2001; and In the Matter of: Proposed New 35 Ill. Adm. Code 217.Subpart U, NO<sub>x</sub> Control and Trading Program for Specified NO<sub>x</sub> Generating Units, Subpart X, Voluntary NO<sub>x</sub> Emissions Reduction Program, and Amendments to 35 Ill. Adm. Code 211, R01-17 April 17, 2001.

### **C. Not Identical In Substance**

As stated *supra*, Illinois EPA's regulatory proposal is not an identical in substance proposal. CAMR provides for, and Illinois EPA is exercising, the authority to adopt regulations that meet the requirements of CAMR without being identical in substance. Moreover, CAMR requires individual states to exercise their decision-making authority in deciding how to meet their general obligations under CAMR. For these reasons, this rulemaking properly appears before the Board under the fast-track provisions of Section 28.5 of the Act.

### **IV. PURPOSE AND EFFECT OF THE PROPOSAL**

As discussed *supra*, this rulemaking proposal has been prepared to satisfy Illinois' obligation to submit a SIP to address the requirements of CAMR and to address the applicable requirements of Section 9.10 of the Act.

In 1999, USEPA determined that nationally coal-fired power plants emitted 48 tons of mercury per year. *70 Fed. Reg.* 28619. Under CAMR, USEPA set a mercury emissions cap in two phases for these plants: 38 tons per year effective in 2010 and 15 tons per year effective in 2018. *Id.* at 28606. Such reductions are envisioned to be achieved through a market based cap and trade program, which distributes mercury allowance that each equate emissions of one ounce of mercury. *Id.* However, provisions in CAMR that allow the banking of mercury allowances could delay actual achievement of the 15-ton per year second phase cap for ten years.

In CAMR, USEPA established an annual mercury budget for each state for 2010 and thereafter. *Id.* at 28649-50. Each state's plan under CAMR must contain emission control requirements and compliance procedures and demonstrate that they will result in compliance

with such state's annual budget for the appropriate periods. *Id.* Illinois' annual budget under CAMR is 1.594 tons per year for the period 2010 through 2017 and 0.629 tons per year for the period 2018 and thereafter. *Id.* CAMR's 2018 national cap of 15 tons per year equates to approximately a 70-percent reduction in mercury emissions from the 1999 baseline year.

Illinois EPA's regulatory proposal aims to achieve maximum mercury reductions in Illinois from EGUs while providing reasonable flexibility for affected sources. To do this, the regulations phase in compliance, include temporary provisions for compliance to be shown in aggregate by the owner of several plants, allow compliance to be shown on a plant-wide basis, and afford relief for EGUs that will be shut down. These provisions will be explained in greater detail, *infra*.

The regulatory proposal will require Illinois coal-fired EGUs that serve a generator greater than 25 megawatts producing electricity for sale to begin to utilize control technology for mercury as necessary to achieve the numerical standards set by the proposed rule beginning July 1, 2009. To achieve this goal while preserving flexibility, the regulations provide new and existing sources with two alternative mercury emission standards to demonstrate compliance. The first alternative allows a source to comply with a mercury emission standard of 0.0080 lb mercury/GWh gross electrical output for each EGU. In the alternative, sources may control emissions by a minimum of 90% from input mercury levels. These standards are designed to provide similar levels of mercury emission reductions, considering particular circumstances of the different plants and units.

These standards apply on a rolling 12-month basis. Each month ends a 12-month period that includes the previous eleven months. Sources may choose which of the two standards they wish to meet and may freely switch between standards from month to month,

as would most likely occur in conjunction with a change in the coal supply to the boiler.

That is, a source may reduce input mercury by 90 percent for an EGU one month and attain an emission standard of 0.008 lb mercury/GWh gross electrical output for each EGU in the next month.

Further flexibility is built into the regulations as they allow compliance to be shown on a source-wide basis. Sources may therefore aggregate the mercury emission reductions from EGUs at the source to demonstrate the 90% reduction of mercury emissions. However, if a source chooses, it may demonstrate compliance on a unit-by-unit basis. Thus, each EGU could be addressed separately to determine compliance with the applicable standard.

In addition, through December 31, 2013, companies with several sources with EGUs may utilize averaging demonstrations between the sources. Those sources that have no sister plants are grouped into a "co-op" so that they may also average amongst the listed facilities. This flexibility allows sources that would benefit from additional time to achieve compliance the ability to do so. However, to prevent possible "hot spots," every source in the averaging demonstration must attain at least a 75% reduction of input mercury or 0.020 lb mercury/GWh gross electrical output. Should such a demonstration fail to achieve compliance, it would be "broken-up" and each source viewed independently to determine its compliance. On and after January 1, 2014, each source will be required to comply on its own; however, before that date, the "system-wide" averaging approach provides reasonable flexibility.

In addition, the mercury emission standards are not applicable to an existing EGU if an owner or operator plans to permanently shut down the EGU. For this purpose, the target for shutdown must be by December 31, 2010, or by December 31, 2011, if the owner or

operator of the EGU is constructing a new EGU or other generating units to specifically replace the existing EGU. Additional time to shut down such a unit is also available due to circumstances that are beyond the control of the source. This will excuse a source from the expense of installing control technology for mercury on an EGU that it intends to shut down. It also encourages sources to carefully consider the replacement of older, less efficient EGUs with new, modern ones. As the preceding discussion illustrates, the regulations provide reasonable flexibility while requiring implementation of appropriate control technology for mercury emissions.

As to monitoring, CAMR mandates that each state plan require EGUs to comply with the monitoring, recordkeeping, and reporting provisions of Part 75 of the *Code of Federal Regulations* with regard to monitoring emissions of mercury to the atmosphere. *70 Fed. Reg.* 28649. Accordingly, affected sources must comply with the monitoring, recordkeeping, and reporting provisions of Sections 225.240 through 225.290 of Part 225. These sections specifically require compliance with 40 CFR Part 75. In addition, rather than use a continuous emission monitoring system, an EGU that emits 464 ounces (29 lbs) of mercury per year or less may use the excepted low mass emissions monitoring methodology under 40 CFR 75.82(b).

Finally, again, CAMR requires that Illinois reduce and maintain mercury emission levels from coal-fired EGUs at or below 1.594 tons per year beginning in 2010. *70 Fed. Reg.* 28649. Beginning in 2018, the budget for mercury emissions from all coal-fired EGUs statewide is set at 0.629 tons per year. *Id.* Even though Illinois EPA's rulemaking proposal requires greater mercury emission reductions and that such reductions be achieved sooner than CAMR, it does not impose an "emissions cap" (or annual electrical generating unit

mercury budget). Future growth of electric generation by coal-fired EGUs in Illinois could theoretically cause mercury emissions to increase above the level of the CAMR's emissions budget for Illinois. Illinois EPA must therefore explain to USEPA how Illinois EPA will ensure that the CAMR budget will never be exceeded.

Initially, Illinois EPA has prepared a projection of expected mercury emissions in Illinois from coal-fired EGUs for the first 10 years of the CAMR program (2010-2020). *See*, TSD at 193-194. The projection was based upon projected growth in generation and emissions by coal-fired EGUs during this timeframe and the emission standards contained in the Illinois EPA's proposal. Then, beginning in 2011, subsequent to the first year of the CAMR program, Illinois EPA would provide to USEPA on an annual basis a report that tabulates mercury emissions reported by the affected sources for the preceding year to demonstrate that actual emissions have not exceeded the applicable CAMR budget. Such annual report submitted by Illinois EPA will also review projections of mercury emissions from coal-fired EGUs in Illinois for the next 5- or 10-year period. In the event that annual emissions exceed or are projected to exceed the applicable Illinois budget under CAMR, based upon either the previous year's reported emissions or on the future projections, Illinois EPA would commit to initiating corrective action to reduce mercury emissions as necessary to comply with the budget. Such corrective action would likely entail the submission of revised mercury emission standards to the Board. Illinois EPA's submission of annual reports, including the future year projections, and any necessary corrective action in the event that the CAMR emissions cap is exceeded would be an integral part of Illinois' plan for mercury emissions.

## **V. GEOGRAPHIC REGIONS AND SOURCES AFFECTED**

The geographic region subject to the proposed regulations for EGUs is the entire State of Illinois. There are 59 existing coal-fired EGUs in Illinois. Table 7.1 of the TSD lists the sources expected to be affected by the proposed regulations.

The proposed regulations are generally expected to affect all existing EGUs and any new EGUs that serve a generator greater than 25 megawatts producing electricity for sale.

## **VI. TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS**

The technology for controlling mercury emissions from coal-fired EGUs is readily available. The Illinois EPA's analysis, explained in detail in Section 8 of the Technical Support Document and supporting documentation, demonstrates the technical feasibility and economic reasonableness of this proposed rulemaking.

## **VII. COMMUNICATION WITH INTERESTED PARTIES**

Illinois EPA engaged in extensive outreach on this proposal. In January 2006, the Illinois EPA commenced regular meetings with representatives of the affected sources and public interest groups. Meetings were held on January 24, January 31, February 7, February 14, February 21, and February 28. Illinois EPA distributed working drafts of the proposed rule to interested parties on January 24 and February 7. In addition, these drafts and a later draft, as well as presentations and pertinent documents, were made available and remain available on the Illinois EPA's website. Illinois EPA also stated its willingness to meet individually with any interested party.

Illinois EPA has received comments on each of these drafts, and this proposal incorporates many of the concerns and suggestions put forth in these comments. Such comments can generally be categorized into the following areas: health impacts, deposition,

technology, monitoring compliance and averaging, basis for the proposal, and cost effectiveness.

These regulations are being proposed after the interested parties have had an opportunity to review the proposal and discuss any issues with Illinois EPA. However, Illinois EPA asserts that as long as the State annual mercury budget is met and the provisions of Section 9.10 of the Act are not contravened, Illinois may approach this rulemaking proposal in the manner it deems best serves the interests of the State and its citizens.

### **VIII. THE ILLINOIS EPA'S PROPOSAL**

The following is a Section-by-Section summary of the Illinois EPA's proposal.

#### **35 Ill. Adm. Code 225**

##### **Subpart A: General Provisions**

###### **Section 225.100**      **Severability**

This Section states that finding a Section, subsection or clause of Part 225 invalid does not affect the validity of this Part as a whole or any Section, subsection or clause not found invalid.

###### **Section 225.120**      **Abbreviations and Acronyms**

This Section sets forth the abbreviations and acronyms used in Part 225.

###### **Section 225.130**      **Definitions**

This Section provides definitions for terms used in Part 225 and incorporates definitions found in 35 Ill. Adm. Code 211. The terms specifically defined in this Section include many terms that are unique to Part 225.

**Section 225.140**      **Incorporations by Reference**

This Section sets forth the documents that are incorporated by reference in this Part. Subsection (a) incorporates by reference a number of sections of Part 60 of Title 40 of the *Code of Federal Regulations*, 40 CFR Part 60, which address Standards of Performance for New Stationary Sources. Specifically, Section 60.17, Incorporations by Reference, Section 60.45a, Standard for Mercury, Section 60.49a(k)(1) and (p), Emission Monitoring, Section 60.50a(h), Compliance Determination Procedures and Methods, and Sections 60.4170 through 60.4176, which address monitoring and reporting, are being incorporated by reference.

Subsection (b) incorporates by reference Part 75 of Title 40 of the *Code of Federal Regulations*, 40 CFR Part 75, which addresses continuous emission monitoring. State plans under the CAMR must require that EGUs comply with the monitoring, recordkeeping, and reporting provisions of Part 75. Subsection (c) incorporates by reference a number of standard test methods that are to be utilized under Part 225.

**Subpart B: Control of Mercury Emissions from Coal-Fired**

**Electric Generating Units**

**Section 225.200**      **Purpose**

The Illinois EPA proposes to add new Part 225, Subpart B, to control mercury emissions from coal-fired electric generating units in Illinois.

**Section 225.202**      **Measurement Methods**

This Section sets forth the measurement methods for mercury under Part 225.

**Section 225.205**      **Applicability**

This Section addresses the applicability of new Part 225, Subpart B. Subsection (a) provides that the Subpart applies to all stationary coal-fired boilers and stationary coal-fired combustion turbines serving a generator with nameplate capacity of more than 25 MWe producing electricity for sale. Subsection (b) provides that 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, this Subpart applies to a cogeneration unit serving at any time a generator with nameplate capacity of more than 25 MWe 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. In addition, 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 subsection (a) starting on the day on which the unit first no longer qualifies as a cogeneration unit.

**Section 225.210**      **Compliance Requirements**

This Section specifies the compliance requirements for EGUs subject to Subpart B. Subsection (a) addresses permit requirements and states that the owner or operator of each source with one or more EGUs at the source must apply for a CAAPP permit that addresses the applicable requirements of Subpart B.

Subsection (b) addresses monitoring requirements. It requires the owner or operator to comply with the monitoring requirements of Sections 225.240 through 225.290 of Subpart B. In addition, it states that the compliance of each EGU with the mercury requirements under Section 225.230 or 225.237 of Subpart B shall be determined by the emissions

measurements recorded and reported in accordance with Sections 225.240 through 225.290 of Subpart B.

Subsection (c) requires the owner or operator of an EGU to comply with the mercury emission reduction requirements set forth under Section 225.230 or 225.237. Subsection (d) sets forth the recordkeeping and reporting requirements that require the owner or operator to keep certain documents; specifically, all emissions monitoring information, copies of all reports, compliance certifications, other submissions and all records made or required or documents necessary to demonstrate compliance with Subpart B, and copies of all documents used to complete a permit application and any other submission under Subpart B. Such documents and records must be kept for five years, unless this period is extended for cause, at any time prior to the end of five years, in writing by the Illinois EPA.

Subsection (e) governs liability and includes provisions requiring the owner or operator of each source with one or more EGUs to meet the requirements of Subpart B, stating that any provision of Subpart B that applies to a source shall also apply to the owner and operator of such source and to the owner and operator of each EGU at the source, and further stating that any provision of Subpart B that applies to an EGU shall also apply to the owner and operator of such EGU.

Subsection (f) provides that no provision of Subpart B shall be construed as exempting or excluding the owner and operator of a source or EGU from compliance with any other provision of an approved State Implementation Plan, a permit, the Act, or the CAA.

**Section 225.220**      **Clean Air Act Permit Program (CAAPP) Permit Requirements**

This Section contains provisions for EGUs subject to Subpart B to explain how applicable requirements of this Subpart are to be folded into a source's CAAPP permit. Subsection (a) requires each source to submit a CAAPP permit application that addresses all applicable requirements and sets forth the time frames for submission of such applications. Subsection (b) addresses the contents of the permit applications. Subsection (c) requires that each CAAPP permit issued by the Illinois EPA for a source shall contain federally enforceable conditions addressing all applicable requirements of Subpart B, which conditions shall be a complete and segregable portion of the source's entire CAAPP permit.

**Section 225.230**      **Emission Standards for EGUs at Existing Sources**

This Section sets forth the emission standards applicable to existing EGUs under Subpart B. Subsection (a) sets forth the basic standards, providing that, beginning July 1, 2009, the owner or operator of an EGU shall comply with one of the following standards on a rolling 12-month basis: (1) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or (2) A minimum 90-percent reduction of input mercury.

Subsection (b) provides that as an alternative to compliance with one of the emission standards in subsection (a), the owner or operator of the EGU may comply with such emission standards by demonstrating that the actual emissions of mercury from the EGU are less than the allowable emissions of mercury from the EGU on a rolling 12-month basis. This allows the owner or operator of an EGU to transfer from one standard to the other, as might occur if the coal supply to a unit changes. Subsection (b) further provides the equations necessary for such compliance.

Subsection (c) provides that if two or more EGUs are served by common stack(s) and the owner or operator conducts monitoring for mercury emissions in the common stack(s), as provided for by 40 CFR Part 75, Subpart I, such that the mercury emissions of each EGU are not determined separately, compliance of the EGUs with the applicable emission standards of Subpart B shall be determined as if the EGUs were a single EGU. This provision is a logical consequence of allowing EGUs that share a common stack to conduct monitoring for mercury in that stack, rather than installing monitors in the ductwork from each EGU.

Subsection (d) provides that as an alternative to compliance with the emission standards of subsection (a), the owner or operator of a source with an EGU may comply with such emission standards by demonstrating that the actual emissions of mercury from all EGUs at the source are less than the allowable emissions of mercury from all EGUs at the source on a rolling 12-month basis. Subsection (d) further provides the equations necessary for such compliance. This Section provides the means for compliance to be shown on a source-wide basis. Subsection (d) also provides that if an owner or operator of a source with one or more EGUs fails to meet the requirements of this Section in a given 12-month rolling period, such source is considered out of compliance with Subpart B for the entire last month of that period.

**Section 225.232**      **Averaging Demonstrations for Existing Sources**

This Section sets forth the provisions relating to utilizing an averaging demonstration by existing sources under Subpart B. Subsection (a) provides that, through December 31, 2013, as an alternative to compliance with the emission standards of Section 225.230(a) of Subpart B, the owner or operator of an EGU may comply with such emission standards by means of an averaging demonstration that shows that the actual emissions of mercury from

the EGU and other EGUs at the source and other EGUs at other sources covered by the demonstration are less than the allowable emissions of mercury from all EGUs covered by the demonstration on a rolling 12-month basis.

Subsection (b) provides that the EGU at each source covered by a demonstration shall also comply with one of the following emission standards on a source-wide basis for the period covered by the demonstration: (1) An emission standard of 0.020 lb mercury/GWh gross electrical output; or (2) A minimum 75-percent reduction of input mercury. This assures that technology for control of mercury emissions is utilized at each source that is covered by a multi-source compliance demonstration.

Subsection (c) provides that for the purpose of this Section, compliance shall be determined using the equations set forth in Section 225.230(a)(2), (a)(3), or (d)(2) of Subpart B, addressing all EGUs at the sources covered by the demonstration, rather than only EGUs at one source. Subsection (d) provides that the owners or operators of more than one source with EGUs can only participate in demonstrations that include other sources that they own or operate. The owner or operator of certain specified single sources with EGUs (i.e., City, Water, Light & Power, City of Springfield; Electric Energy, Inc.; Kincaid Generating Station; and Southern Illinois Power Cooperative/Marion Generating Station) can only participate in demonstrations with the other named owners or operators of a single source of EGUs. In addition, participation in demonstrations under this Section must be authorized through federally enforceable permit conditions for each such source participating in the demonstration. This is intended to assure that the role and the responsibilities of the different entities involved in the compliance demonstration for Part 225 are well defined.

Subsection (e) provides that a source may be included in only one demonstration during each rolling 12-month period. Subsection (f) provides that the owner or operator of EGUs using demonstrations to show compliance with Subpart B must complete the determination of compliance for each 12-month rolling period no later than 60 days following the end of the period.

Subsection (g) provides that if averaging is used to demonstrate compliance with Subpart B, the effect of a failure to demonstrate compliance shall be that the compliance status of each source shall be determined under Section 225.230 of this Subpart as if the sources were not covered by a demonstration. Subsection (h) provides that if the owner or operator of any source participates in a demonstration with an owner or operator of a source that does not maintain the required records, data, and reports for the EGUs at the source, or does not submit copies of such records, data, or reports to the Illinois EPA upon request, then the effect of this failure will be deemed to be a failure to demonstrate compliance and the compliance status of each source shall be determined under Section 225.230 of this Subpart as if the sources were not covered by a Demonstration.

**Section 225.235**      **Units Scheduled for Permanent Shut Down**

This Section contains provisions addressing units scheduled for permanent shut down. Subsection (a) provides that the emission standards of Section 225.230(a) are not applicable to an EGU that will be permanently shut down. In order to comply with this Section, the owner or operator of an EGU shall by no later than June 30, 2009, have notified the Illinois EPA that it is planning to permanently shut down the EGU by December 31, 2010, if the owner or operator of the EGU is not constructing a new EGU or other generating units to specifically replace the existing EGU, or by December 31, 2011, if the owner operator of the

EGU is constructing a new EGU or other generating units to specifically replace the existing EGU. Such notification shall be accompanied by a description of the actions that have already been taken to allow the shut down of the EGU and a description of the future actions that must be accomplished to complete the shut down of the EGU, with the anticipated schedule for those actions and the anticipated date of permanent shutdown of the unit. In addition, the owner or operator of such EGU must have applied for a construction permit or be actively pursuing a federally enforceable agreement that requires the EGU to be permanently shut down in accordance with this Section and have applied for revisions to the operating permit(s) for the EGU to include provisions that terminate the authorization to operate the unit in accordance with this Section.

The owner or operator must permanently shut down the EGU by the applicable date, unless the owner or operator submits a demonstration to Illinois EPA before such date showing that circumstances beyond its reasonable control (such as protracted delays in construction activity for the new replacement units, unanticipated outage of another EGU, or protracted shakedown of a replacement unit) have occurred that interfere with the plan for permanent shut down of the existing EGU, in which case the date for shut down of the existing EGU may be extended for up to one year if the EGU is not being replaced or up to 18 months if the EGU is being replaced, provided, however, that after December 31, 2012, the existing EGU shall only operate as a back-up unit.

Subsection (b) provides that notwithstanding Sections 225.230 and 225.232, any EGU that is not required to comply with Section 225.230 pursuant to this Section shall not be included when determining whether any other EGUs at the source or other sources are in compliance with Section 225.230.

Subsection (c) provides that an EGU that is not shut down after relying on Section 225.235, so as to not be subject to mercury emission standards, shall be considered to be a new EGU subject to the emission standards in Section 225.237(a) of this Subpart beginning in the month after the EGU was required to be permanently shut down. This automatic consequence for failure to shut down applies in addition to any other penalties that may be imposed for failure to permanently shut down the EGU in accordance with this Section.

**Section 225.237**      **Emission Standards for New Sources with EGUs**

This Section sets forth the emission standards applicable to new sources with EGUs. Subsection (a) provides that the owner or operator of a source with one or more EGUs, but that previously had not had any EGUs that commenced commercial operation before January 1, 2009, shall comply with one of the following emission standards for each EGU on a rolling 12-month basis: (1) An emission standard of 0.0080 lbs mercury/GWh gross electrical output; or (2) A minimum 90-percent reduction of input mercury. It further provides that in complying with such emission standards, compliance may be demonstrated using the equations set forth in Section 225.230(a)(2), (a)(3), or (b)(2) of Subpart B.

Subsection (b) provides that the initial 12-month rolling period for which compliance with the emission standards of this Section must be demonstrated for a new EGU shall commence on the date that the initial performance test for the mercury emission standard under 40 CFR 60.45a also commences. In addition, the continuous emission monitoring systems required by this Subpart for mercury emissions from the EGU must be certified prior to this date. Thereafter, compliance shall be demonstrated on a rolling-12 month basis in terms of calendar months.

**Section 225.240**      **General Monitoring and Reporting Requirements**

This Section requires the owner or operator of an EGU to comply with the monitoring, recordkeeping, and reporting requirements provided in this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75. If the EGU utilizes a common stack with units that are not EGUs and the owner or operator of the EGU does not conduct emissions monitoring in the duct to the common stack from each EGU, the owner or operator of the EGU shall conduct emissions monitoring in accordance with 40 CFR 75.82(b)(2) and this Section, including monitoring in the duct to the common stack from each unit that is not an EGU, unless the owner or operator of the EGU counts the combined emissions measured at the common stack as the mass emissions of mercury for the EGUs for recordkeeping and compliance purposes.

This Section also sets forth the general requirements for installation, certification, and data accounting. Subsection (a) requires the owner or operator of each EGU to install all required monitoring systems, successfully complete all required certification tests, and record, report, and quality-assure the data from such monitoring systems. If the owner or operator elects to use the excepted low mass emissions monitoring methodology for an EGU that emits no more than 464 ounces (29 pounds) of mercury per year pursuant to 40 CFR 75.81(b), such owner or operator must also perform emissions testing in accordance with 40 CFR 75.81(c) to demonstrate that the EGU is eligible to use this excepted emissions monitoring methodology as well as comply with all other applicable requirements of 40 CFR 75.81(b) through (f), and submit a copy of any information required to be submitted to the USEPA under these provisions to the Illinois EPA. Furthermore, this subsection sets forth

the compliance dates for initial emissions testing to demonstrate eligibility of an EGU for the low mass emissions excepted methodology.

Subsection (b) sets forth the deadlines for certification of continuous emission monitoring systems. Compliance with the emissions monitoring system certification for the owner or operator of an EGU that commences commercial operation before July 1, 2008, is required on or before January 1, 2009. Compliance with the monitoring system certification for the owner or operator of an EGU that commences commercial operation on or after July 1, 2008, is required by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the EGU commences commercial operation.

Furthermore, subsection (b) provides that for the owner or operator of an EGU for which construction of a new stack or flue or installation of add-on mercury emission controls, a flue gas desulfurization system, a selective catalytic reduction system, a fabric filter, or a compact hybrid particulate collector system is completed after the applicable deadline above, recertification of the continuous emission monitoring system is required within 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack, flue, or control device.

Subsection (c) provides that the owner or operator of an EGU that does not meet the applicable date for certification of any required emissions monitoring system shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for mercury concentration, stack gas flow rate, stack gas moisture content, and any other parameters required to determine mercury mass emissions in accordance with 40 CFR 75.80(g). For an EGU for which a continuous emission monitoring system must be recertified because a new stack, flue, or control device

is installed, subsection (c) further provides that the owner or operator of an EGU that does not meet the applicable date for recertification of any required emissions monitoring system shall, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in 40 CFR 75.80(f), in lieu of the maximum potential (or, as appropriate, minimum potential) values, for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation of the new stack, flue, or control device.

Subsection (d) lists prohibitions and specifies that no owner or operator of an EGU shall use any alternative emissions monitoring system, alternative reference method for measuring emissions, or any other alternative to the emissions monitoring and measurement requirements of this Section and Sections 225.250 through 225.290 of this Subpart, unless such alternative is promulgated by USEPA and approved in writing by Illinois EPA or the use of such alternative is approved in writing by Illinois EPA and USEPA. In addition, no owner or operator of an EGU shall operate the EGU so as to discharge, or allow to be discharged, mercury emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75. No owner or operator of an EGU shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording mercury mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75. Lastly, no owner or operator of an EGU

shall retire or permanently discontinue use of the continuous emission monitoring system or any component thereof, or any other approved monitoring system under this Subpart, except under limited circumstances.

Subsection (e) provides that the owner or operator of an EGU that is in long-term cold storage is subject to the applicable provisions of 40 CFR Part 75 for monitoring, recordkeeping, and reporting for units in long-term cold storage.

**Section 225.250**      **Initial Certification and Recertification Procedures for Emissions Monitoring**

This Section in subsection (a) specifies the initial certification and recertification procedures for a continuous emissions monitoring system. The provisions for standard continuous monitoring (i.e., a continuous emission monitoring system or an excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15) are contained in subsection (a). The owner or operator of an EGU that qualifies for and for which the owner or operator elects to use the low mass emissions excepted methodology under 40 CFR 75.81(b) must comply with the procedures in subsection (c) of this Section.

Subsection (b) provides that if a monitoring system has been previously certified in accordance with 40 CFR Part 75 and the applicable quality assurance and quality control requirements of 40 CFR 75.21 and Appendix B to 40 CFR Part 75 are fully met, the monitoring system shall be exempt from the initial certification requirements of this Section. In addition, subsection (b) further provides that the recertification provisions of this Section shall apply to a monitoring system required by Section 225.240(a)(1) exempt from initial certification requirements under subsection (a)(1) of this Section.

Subsection (c) references the initial certification and recertification procedures for EGUs using the mercury low mass emissions excepted methodology under 40 CFR 75.81(b).

This subsection provides that the owner or operator of an EGU qualified to use the mercury low mass emissions excepted methodology under 40 CFR 75.81(b) shall meet the applicable certification and recertification requirements in 40 CFR 75.81(c) through (f). Subsection (d) requires the owner or operator of an EGU to submit an application to the Illinois EPA within 45 days after completing all initial certification or recertification tests required under this Section, including the information required under 40 CFR 75.63.

**Section 225.260**      **Out of Control Periods for Emissions Monitors**

This Section in subsection (a) states that whenever any emissions monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable missing data procedures in Subparts D and I of 40 CFR Part 75.

Subsection (b) also provides that whenever both an audit of an emissions monitoring system and a review of the initial certification or recertification application reveal that any emissions monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under Section 225.250 of this Subpart or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Illinois EPA will issue a notice of disapproval of the certification status of such monitoring system. It also provides that by issuing the notice of disapproval, the Illinois EPA revokes prospectively the certification status of the monitoring system. In addition, the owner or operator is required to follow the applicable initial certification or recertification procedures in Section 225.250 of this Subpart for each disapproved monitoring system.

**Section 225.261**      **Additional Requirements to Provide Heat Input Data**

This Section provides that the owner or operator of an EGU that monitors and reports mercury mass emissions using a mercury concentration monitoring system and a flow monitoring system shall also monitor and report heat input rate at the EGU level using the procedures set forth in 40 CFR Part 75.

**Section 225.263**      **Monitoring of Gross Electrical Output**

This Section provides that the owner or operator of an EGU complying with this Subpart by means of a provision that requires data electrical output, e.g., Section 225.230(a)(1), shall monitor gross electrical output of the associated generator(s) in MWh on an hourly basis.

**Section 225.265**      **Coal Analysis for Input Mercury Levels**

This Section specifies that the owner or operator of an EGU complying with this Subpart by means of Section 225.230(a)(2) or using input mercury levels and complying by means of Section 225.230(b) or (d) or Section 225.232 shall perform daily sampling of the coal combusted in the EGU for mercury content. The owner or operator of such EGU shall collect a minimum of one 2-lb grab sample per day of operation from the belt feeders anywhere between the crusher house or breaker building and the boiler. Such sample shall be taken in such a manner so as to provide a representative mercury content for the coal burned on that day.

In addition, such owner or operator shall analyze the grab coal sample to determine the heat content using ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke, or equivalent approved in writing by the Agency; determine the moisture content using ASTM D3173-03, Standard Test Method for Moisture in the Analysis Sample

of Coal and Coke, or equivalent approved in writing by the Agency; and measure the mercury content using ASTM D6414-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold Vapor Atomic Absorption, ASTM D3684-01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method, or equivalent approved in writing by the Agency.

Furthermore, the owner or operator of multiple EGUs at the same source using the same crusher house or breaker building may take one sample per crusher house or breaker building, rather than one per EGU. Such owner or operator of an EGU shall use the data analyzed to determine the mercury content in terms of lbs/trillion Btu.

In addition, the owner or operator of an EGU that must conduct sampling and analysis of coal pursuant to this Section shall begin such activity at least 30 days before the start of the month for which such activity will be required, if the EGU is in daily service, and if the EGU is not in daily service, on the day that the EGU resumes operation.

**Section 225.270**      **Notifications**

This Section provides that the owner or operator of a source with one or more EGUs shall submit written notice to the Illinois EPA according to the provisions in 40 CFR 75.61 for each EGU or group of EGUs monitored at a common stack and each non-EGU monitored under 40 CFR 75.82(b)(2)(ii).

**Section 225.290**      **Recordkeeping and Reporting**

This Section contains the general recordkeeping and reporting requirements for the owner or operator of an EGU. Subsection (a)(1) provides that the owner or operator and

designated representative shall comply with all applicable requirements in this Section and the applicable recordkeeping and reporting requirements of 40 CFR 75.84.

Subsection (a)(2) requires the owner or operator of an EGU subject to emission standards to keep records for each month identifying the applicable emission standard with which it is complying or from which it is calculating its allowable emissions. In addition, the owner or operator of an EGU complying with Subpart B by means of Section 225.230(a)(2) or 225.237(a)(1)(B) or using input mercury levels to determine the allowable emissions of the EGU shall maintain the daily mercury content of coal used and the daily input mercury in the file required under 40 CFR 75.84(a). The owner or operator of an EGU complying with Subpart B by means of Section 225.230(a)(1) or 225.237(a)(1)(A) or using electrical output to determine the allowable emissions of the EGU shall maintain the daily gross electrical output in the file required under 40 CFR 75.84(a).

Subsection (a)(3) requires the owner or operator to maintain records of monthly mercury emissions, and if using an averaging methodology, the owner or operator is required to maintain all other information collected on a daily basis necessary to calculate the average. Subsection (a)(4) requires that the owner or operator of an EGU who is participating in an averaging demonstration pursuant to Section 225.232 keep records of other sources and other EGUs that are covered by the demonstration and calculate and record within 60 days of the end of each month the allowable and actual mercury emissions for the month and the 12-month rolling period. Subsection (a)(5) sets forth the quality assurance records (e.g., results of quarterly assessments and daily/weekly system integrity checks) that are required to be kept on site for emissions monitoring systems and made available to the Illinois EPA upon request. Subsection (a)(6) requires that records be kept in electronic form of certain

submittals of data made to USEPA in electronic form. Subsection (a)(7) contains general provisions for records, requiring them to be kept at the source unless otherwise in the CAAPP permit and requiring copies of records to be made available to the Illinois EPA when requested.

Subsection (b) requires the submission of quarterly reports and sets forth the information that must be included in such reports. Subsection (c) requires the owner or operator to submit a compliance certification in support of each quarterly report and specifies the contents of such certification. Subsection (d) requires the owner or operator to additionally submit to the Illinois EPA an Annual Certification of Compliance, which is due no later than May 1 of each year and addresses compliance for the previous calendar year, and specifies the contents of such certification. Subsection (e) requires, for each EGU, that the owner or operator promptly notify the Illinois EPA of deviations from requirements of Subpart B. Subsection (f) requires the owner or operator of an EGU to submit the quality assurance relative accuracy test audit ("RATA") report for affected EGUs to the Illinois EPA within 45 days after completing a quality assurance RATA.

**Section 225.295**      **Treatment of Mercury Allowances**

This Section provides that any mercury allowances allocated to the State under CAMR shall not be allocated to any owner or operator of an EGU or other sources of mercury emissions into the atmosphere or discharges into the waters of the State. It further provides that Illinois EPA shall hold all allowances allocated by USEPA to the State, and at the end of each calendar year, Illinois EPA shall instruct USEPA to retire permanently all such allowances.

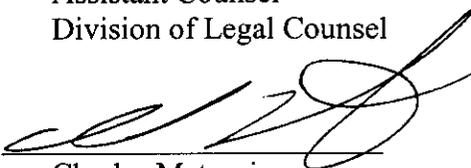
**IX. CONCLUSION**

For the reasons stated above, the Illinois EPA hereby submits this regulatory proposal and requests the Board to adopt these rules for the State of Illinois.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

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MAR 14 2006

STATE OF ILLINOIS  
Pollution Control Board

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

|                                    |   |                    |
|------------------------------------|---|--------------------|
| IN THE MATTER OF:                  | ) |                    |
|                                    | ) |                    |
| PROPOSED NEW 35 ILL. ADM. CODE 225 | ) | R06- 25            |
| CONTROL OF EMISSIONS FROM          | ) | (Rulemaking – Air) |
| LARGE COMBUSTION SOURCES           | ) |                    |

**MOTION TO HOLD REQUIRED HEARINGS IN SPRINGFIELD**

NOW COMES the Proponent, the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (“Illinois EPA”), by one of its attorneys, and pursuant to 35 Ill. Adm. Code 101.500 and 102.402, moves that the Illinois Pollution Control Board (“Board”) hold all of the required hearings under this rulemaking proposal in Springfield, Illinois. In support of its Motion, the Illinois EPA respectfully states as follows:

Section 102.304(f) of the Board's procedural rules states, in pertinent part, "CAAA [Clean Air Act Amendments of 1990] hearings need only be held in one affected area of the State." 35 Ill. Adm. Code 102.304(f). Accordingly, Section 102.304(f) specifically confers upon the Board the authority to hold rulemaking hearings in a single impacted area of the State. For several reasons, the Board should hold all required hearings in the City of Springfield.

There are 21 coal-fired power plants in Illinois that consist of 59 coal-fired electric generating units that fall within the scope of this rulemaking proposal. The sources affected by this rulemaking proposal are spread throughout Illinois. For instance, AmerenEnergy Generating Company and AmerenEnergy Resources Generating Company generally maintain facilities in Central Illinois; the City of Springfield's facility is located in Central Illinois; Dynegy Midwest Generation, Inc.'s facilities are generally found in Central and Southern Illinois; Electric Energy, Inc. is situated in Southern

Illinois; Kincaid Generation, LLC's facility is in Central Illinois; Midwest Generation, LLC generally maintains facilities in Northern Illinois; and Southern Illinois Power Cooperative's facility is in Southern Illinois.

As described above, the power plants subject to this rulemaking proposal reach from the Chicago metropolitan area to the southern-most tip of the State. As such, Springfield provides an ideal central location for the required hearings. Moreover, many of these electric generating units are at facilities located within Central Illinois. Specifically, AmerenEnergy Generating Company has facilities in Coffeen, Hutsonville, Meredosia, and Newton; AmerenEnergy Resources Generating Company maintains a facility in Bartonville; the City of Springfield's facility is located in Springfield; Dynegy Midwest Generation, Inc. has facilities located in Havana and Oakwood; and Kincaid Generation, LLC is situated near Kincaid. As the City of Springfield is not only an affected area of the State, but is centrally located for all the affected areas of the State, the City of Springfield is an appropriate hearing location pursuant to Section 102.304(f) of the Board's procedural rules.

In addition to the facts cited above, State administrative and financial constraints favor a Springfield forum for the hearings. The Board and the Illinois EPA both maintain offices in Springfield. Presumably, a number of Board members and staff will be in attendance at the hearings, and having hearings held in the same city as a Board office would allow for access to all Board resources.

Similarly, a large number of the Illinois EPA's technical staff located in Springfield will be testifying and providing technical assistance in this rulemaking proposal. At this juncture, the Illinois EPA estimates that the attendance of

approximately 15 to 20 employees will be required at these hearings. Given the sizeable number of Illinois EPA's technical staff, in addition to the legal and administrative support staff, that will be attending the hearings, logistical demands and expenses to the State of Illinois due to transportation, food, and lodging for a non-Springfield forum will be considerable.

The potential expenses to the State will be even more onerous in any protracted hearing. Thus, holding all of the required hearings in Springfield will allow for the Board and the Illinois EPA to conserve administrative resources.

Section 102.304 of the Board's procedural rules describes the format of hearings. The first hearing "is reserved for the Agency's testimony and questions of the Agency's witnesses;" "a second hearing will be held to hear comments on Department of Commerce and Economic Opportunity's economic study of the proposed rules" and "must also permit the presentation of testimony, documents, and comments by affected entities and all other interested persons;" and the third hearing, if held, "shall be devoted solely to any Agency response to the material submitted at the second hearing and to any response by other parties."

The Illinois EPA held public outreach meetings in Springfield for six consecutive Tuesdays in the past two months. Numerous industry and environmental organization representatives participated in these meetings and expressed significant interest in this rulemaking proposal. Consistent with this strong public interest, counsel for the various electrical generating units stated in the last public meeting that the second hearing would likely take an extensive period of time, suggesting that the second hearing could take upwards of two weeks.

Such a protracted hearing beyond the control of State representatives would result in considerable expense to the State. This is due to the fact that a large number of the Illinois EPA's technical, legal, and administrative staff will be required at each of the hearings, including the second hearing. Indeed, although the second hearing is intended to allow for the affected entities' presentation of "testimony, documents, and comments," the Illinois EPA will nonetheless need to have a number of personnel available to question and record the presentation. And, as noted above, the Board will likely have a number of its own staff attend each hearing at State expense. For all these reasons, the Illinois EPA requests that the Board hold all required hearings in Springfield.

However, if the Board should decide that all required hearings cannot be held in Springfield, the Illinois EPA requests that the first and third (if necessary) hearings be held outside of Springfield and the second hearing be held in Springfield. The Illinois EPA will be largely responsible for the scope and length of the first and third hearings, and therefore can make travel plans accordingly. Also, those hearings combined may not take as long as the second hearing alone. The Illinois EPA will not have any direct control over the scope and length of the second hearing, and thus will be put into a very difficult position in terms of anticipating and making travel arrangements. Therefore, at the very least, holding the second hearing in Springfield will alleviate a large part of the burden on the State's expenses.

The Illinois EPA recognizes and appreciates the Board's concern that members of the affected sources and the public have every opportunity to participate in Board hearings. The Illinois EPA agrees that all practicable efforts to allow for such input be

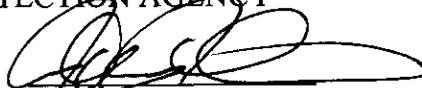
made and that the City of Springfield provides a centrally-located forum for input from the public stretching throughout the State.

WHEREFORE, for the reasons set forth above, the Illinois EPA respectfully requests that the Board hold all of the required hearings under this rulemaking proposal in Springfield, or in the alternative, in the event that it is infeasible that all of the required hearings be held in Springfield, the Illinois EPA moves that the second hearing be held in Springfield.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By:



John J. Kim  
Managing Attorney  
Air Regulatory Unit  
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DATED: March 14, 2006

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ORIGINAL

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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CLERK'S OFFICE

MAR 14 2006

STATE OF ILLINOIS  
Pollution Control Board

IN THE MATTER OF: )  
 )  
PROPOSED NEW 35 ILL. ADM. CODE 225 )  
CONTROL OF EMISSIONS FROM )  
LARGE COMBUSTION SOURCES )

R06- 25  
(Rulemaking - Air)

**MOTION FOR WAIVER OF COPY REQUIREMENTS**

NOW COMES the Proponent, the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), by one of its attorneys, and pursuant to 35 Ill. Adm. Code 101.500, 102.110 and 102.402, moves that the Illinois Pollution Control Board ("Board") waive certain requirements, namely that the Illinois EPA submit the original and nine copies of all documents upon which it relied. In support of its Motion, the Illinois EPA states as follows:

**A. First Request For Waiver Of Copy Requirements  
Regulatory Proposal**

Section 102.200 of the Board's procedural rules requires that the original and nine copies of each regulatory proposal be filed with the Clerk. 35 Ill. Adm. Code 102.200. This entire regulatory proposal consists of over 1,000 pages. Given the length of the proposal and the resources required to provide nine copies, the Illinois EPA requests that the Board waive the normal copy requirements of Section 102.200 and allow the Illinois EPA to instead file the original and four complete copies of the proposal, plus five partial copies, the partial copies consisting of the Table of Contents, Statement of Reasons (with attachments), pleadings and the proposed rule absent documents relied upon.

**B. Second Request For Waiver Of Copy Requirements  
Documents Relied Upon**

Section 28.5(e)(7) of the Environmental Protection Act requires the Illinois EPA to submit copies of all documents that it relied upon in the development of the proposal or upon

which it intends to rely at hearing. 415 ILCS 5/28.5(e)(7). A list of those documents relied upon that are the subject of this motion is found in Attachment A. Some of the items are denoted with an asterisk. The items with an asterisk in Attachment A are readily accessible to, or are already within the possession of, the Board. Given this ease of accessibility, and in most cases the lengthy nature of the documents, the Illinois EPA requests that the Board waive the normal copy requirements of Section 102.200 of the Board's procedural rules and allow the Illinois EPA to not file any copies of the items denoted with an asterisk listed on Attachment A.

The remainder of the documents listed in Attachment A are quite large in number and in length. For that reason, the Illinois EPA requests that the Board waive the normal copy requirements and allow the Illinois EPA to file an original and four copies of the remainder of the documents listed in Attachment A.

### **C. Third Request For Waiver Of Copy Requirements Documents Incorporated By Reference**

Section 5-75(a) of the Illinois Administrative Procedure Act ("IAPA") provides in relevant part that an agency may incorporate by reference the regulations, standards and guidelines of an agency of the United States or a nationally recognized organization or association without publishing the incorporated material in full. 5 ILCS 100/5-75(a). Further, Section 5-75(b) of the IAPA provides in relevant part that the agency adopting a rule or regulation under the IAPA shall maintain a copy of the referenced rule, regulation, standard or guideline in at least one of its principal offices and shall make it available to the public upon request. 5 ILCS 100/5-75(b).

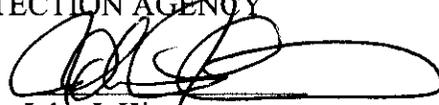
In developing this proposed rulemaking, the Illinois EPA has incorporated by reference certain documents. A list of those documents incorporated by reference that are the subject of this motion is found in Attachment B.

The items listed in Attachment B are readily accessible to, or are already within the possession of, the Board. Given this ease of accessibility, and the lengthy nature of the documents, the Illinois EPA requests that the Board waive the normal copy requirements of Section 102.200 of the Board's procedural rules and allow the Illinois EPA to not file any copies of the items listed on Attachment B.

WHEREFORE, for the reasons set forth above, the Illinois EPA moves that the Board waive the copy requirement and allow the Illinois EPA to provide the Board with an original and four complete copies of the proposal, along with five partial copies as described *supra*. Further, the Illinois EPA moves that the Board allow the Illinois EPA to file either no copies or an original and four copies of the documents relied upon as listed in Attachment A and as described *supra*. Finally, the Illinois EPA moves that the Board allow the Illinois EPA to file no copies of the documents incorporated by reference as listed in Attachment B.

Respectfully submitted,  
ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By:



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DATED: March 14, 2006

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## ATTACHMENT A

### Documents Relied Upon

1. \* The Clean Air Act, as amended in 1990 (42 U.S.C. § 7401 *et seq.*).
2. \* Illinois Environmental Protection Act (415 ILCS 5/1 *et seq.*).
3. \* Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units, 65 Fed. Reg. 79825 (December 20, 2000).
4. \* Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Proposed Rule, 69 Fed. Reg. 4652 (January 30, 2004).
5. \* Supplemental Notice for the Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units; Proposed Rule, 69 Fed. Reg. 12398 (March 16, 2004).
6. \* Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units From the Section 112(c) List; Final Rule, 70 Fed. Reg. 15994 (March 29, 2005).
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14. Durham, “Advances in Mercury Control Technology”, Pennsylvania Mercury Rule Workgroup Meeting, November 18, 2005.
15. “Field Test Program for Long-Term Operation of a COHPAC® System for Removing Mercury”, DOE/NETL’s Mercury Control Technology R&D Program Review, Pittsburgh, PA, July 12-13, 2005.
16. Hurt, R., Suuberg, E., Yu-Ming, Mehta, A., “The Passivation of Carbon for Improvement of Air Entrainment in Fly Ash Concrete”,  
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## **ATTACHMENT B**

### **Documents Incorporated By Reference**

1. 40 CFR Part 60, § 60.17, § 60.45a, § 60.49a(k)(1), § 60.49a(p), § 60.50a(h), and §§ 60.4170 through 60.4176 (2005).
2. 40 CFR Part 75 (2005).

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- 1) Heading of the Part: Control of Emissions from Large Combustion Sources
- 2) Code Citation: 35 Ill. Adm. Code Part 225
- 3) 

| <u>Section Numbers:</u> | <u>Proposed Action:</u> |
|-------------------------|-------------------------|
| 225.100                 | New                     |
| 225.120                 | New                     |
| 225.130                 | New                     |
| 225.140                 | New                     |
| 225.200                 | New                     |
| 225.202                 | New                     |
| 225.205                 | New                     |
| 225.210                 | New                     |
| 225.220                 | New                     |
| 225.230                 | New                     |
| 225.232                 | New                     |
| 225.235                 | New                     |
| 225.237                 | New                     |
| 225.240                 | New                     |
| 225.250                 | New                     |
| 225.260                 | New                     |
| 225.261                 | New                     |
| 225.263                 | New                     |
| 225.265                 | New                     |
| 225.270                 | New                     |
| 225.290                 | New                     |
| 225.295                 | New                     |
- 4) Statutory Authority: The Illinois Environmental Protection Act [415 ILCS 5/9.10, 27 and 28.5 (2005)]
- 5) A Complete Description of the Subjects and Issues Involved:

This rulemaking is proposed to meet certain obligations of the State of Illinois under the Clean Air Act, 42 U.S.C. § 7401 *et seq.*; specifically, to satisfy Illinois' obligation to submit a State Implementation Plan to address the requirements of the Clean Air Mercury Rule, 70 Fed. Reg. 28606, and to address the applicable requirements of Section 9.10 of

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the Environmental Protection Act, 415 ILCS 5/9.10. This proposal will require Illinois coal-fired EGUs that serve a generator greater than 25 megawatts producing electricity for sale to begin to utilize control technology for mercury as necessary to achieve the numerical standards set by the proposed rule beginning July 1, 2009. To achieve this goal while preserving flexibility, the regulations provide new and existing sources with two alternative mercury emission standards to demonstrate compliance. The first alternative allows a source to comply with a mercury emission standard of 0.0080 lb mercury/GWh gross electrical output for each EGU. In the alternative, sources may control emissions by a minimum of 90% from input mercury levels. In addition, through December 31, 2013, companies with several sources with EGUs may utilize averaging demonstrations between the sources. Those sources that have no sister plants are grouped into a co-op so that they may also average amongst the listed facilities. However, every source in the averaging demonstration must attain at least a 75% reduction of input mercury or 0.020 lb mercury/GWh gross electrical output. This proposal also sets forth permitting, monitoring, recordkeeping, and reporting requirements for affected sources.

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA's *Technical Support Document for Reducing Mercury Emissions from Coal-Fired Electric Generating Units (TSD)* that relied on several published studies and reports. Copies of the documents the Illinois EPA relied upon are available for review with the Pollution Control Board and are listed below. The *TSD* includes an executive summary of the results from the Integrated Planning Model that was performed by ICF Resources, Inc. contracted by the Illinois EPA. The underlying data used to perform the modeling and the results are also available for review at the Pollution Control Board.

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U.S. Geological Survey. “Coal Quality Information-Key to the Efficient and Environmentally Sound Use of Coal.” February 9, 2006.

- 7) Will this proposed rule replace an emergency rule currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? \_\_\_\_ Yes  No
- 9) Does this proposed rule contain incorporations by reference? Yes
- 10) Are there any other proposed rule(s) pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge

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a State mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2002)].

- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking:
  
- 13) Initial Regulatory Flexibility Analysis:
  - A) Types of small businesses, small municipalities and not for profit corporations affected: None
  
  - B) Reporting, bookkeeping or other procedures required for compliance:

The proposed rulemaking requires the owner or operator of an affected source to install required emissions monitoring systems, complete required certification tests, and record, report, and quality-assure the data from such systems. The owner or operator of an affected source must also maintain emissions monitoring information, submit quarterly reports, compliance certifications, and annual certifications of compliance.
  
  - C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal air pollution control regulations applicable to affected sources will be required.
  
- 14) Regulatory Agenda on which this rulemaking was summarized:

January 2006

The full text of the Proposed Rule(s) begins on the next page:

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**TITLE 35: ENVIRONMENTAL PROTECTION**  
**SUBTITLE B: AIR POLLUTION**  
**CHAPTER I: POLLUTION CONTROL BOARD**  
**SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR**  
**STATIONARY SOURCES**

**PART 225**  
**CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES**

**SUBPART A: GENERAL PROVISIONS**

**Section**

|         |                             |
|---------|-----------------------------|
| 225.100 | Severability                |
| 225.120 | Abbreviations and Acronyms  |
| 225.130 | Definitions                 |
| 225.140 | Incorporations by Reference |

**SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED**  
**ELECTRIC GENERATING UNITS**

**Section**

|         |   |
|---------|---|
| 225.200 | Purpose   |
| 225.202 | Measurement Methods   |
| 225.205 | Applicability   |
| 225.210 | Compliance Requirements   |
| 225.220 | Clean Air Act Permit Program (CAAPP) Permitting Requirements                  |
| 225.230 | Emission Standards for EGUs at Existing Sources                               |
| 225.232 | Averaging Demonstrations for Existing Sources                                 |
| 225.235 | Units Scheduled for Permanent Shut Down                                       |
| 225.237 | Emission Standards for New Sources with EGUs                                  |
| 225.240 | General Monitoring and Reporting Requirements                                 |
| 225.250 | Initial Certification and Recertification Procedures for Emissions Monitoring |
| 225.260 | Out of Control Periods for Emission Monitors                                  |
| 225.261 | Additional Requirements to Provide Heat Input Data                            |
| 225.263 | Monitoring of Gross Electrical Output   |
| 225.265 | Coal Analysis for Input Mercury Levels  |
| 225.270 | Notifications   |
| 225.290 | Recordkeeping and Reporting   |
| 225.295 | Treatment of Mercury Allowances   |

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AUTHORITY: Implementing Section 9.10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9.10, 27 and 28.5].

SOURCE: Adopted at \_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

**SUBPART A: GENERAL PROVISIONS**

Section 225.100 Severability

If any Section, subsection or clause of this Part is found invalid, such finding shall not affect the validity of this Part as a whole or any Section, subsection or clause not found invalid.

Section 225.120 Abbreviations and Acronyms

Unless otherwise specified within this Part, the abbreviations used in this Part shall be the same as those found in 35 Ill. Adm. Code 211. The following abbreviations and acronyms are used in this Part:

|                 |   |
|-----------------|---|
| Act             | Environmental Protection Act [415 ILCS 5/1 <i>et seq.</i> ] |
| Btu             | British thermal unit  |
| CAA             | Clean Air Act [42 U.S.C. 7401 <i>et seq.</i> ]              |
| CAAPP           | Clean Air Act Permit Program                                |
| CO <sub>2</sub> | carbon dioxide  |
| EGU             | electric generating unit                                    |
| GWh             | gigawatt hour   |
| hr              | hour  |
| lb              | pound   |
| MW              | megawatt  |
| MWe             | megawatt electrical   |
| MWh             | megawatt hour   |
| NO <sub>x</sub> | nitrogen oxides   |
| O <sub>2</sub>  | oxygen  |
| RATA            | relative accuracy test audit                                |
| SO <sub>2</sub> | sulfur dioxide  |
| USEPA           | United States Environmental Protection Agency               |

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The definitions contained in this Section apply only to the provisions of this Part. Unless otherwise defined herein and unless a different meaning of a term is clear from its context, the definitions of terms used in this Part shall have the meanings specified for those terms in 35 Ill. Adm. Code Part 211.

"Averaging demonstration" means, with regard to Subpart B of this Part, a demonstration of compliance that is based on the combined performance of EGUs at two or more sources.

"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 for Testing and Materials (ASTM) Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, 98a, or 99 (Reapproved 2004).

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

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

"Cogeneration unit" means a stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine:

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

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

For a topping-cycle cogeneration unit,

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

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

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

"Combustion turbine" means

An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

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

"Commence commercial operation" means, with regard to Subpart B of this Part, with regard to an Electric Generating Unit that serves a generator, to have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation. Such date shall remain the unit's date of commencement of operation even if the Electric Generating Unit is subsequently modified, reconstructed or repowered.

"Designated representative" means, with regard to Subpart B of this Part, the same as defined in 40 CFR 60.4102.

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"Flue" means a conduit or duct through which gases or other matter is exhausted to the atmosphere.

"Gross electrical output" means the total electrical output from an Electric Generating Unit before making any deductions for energy output used in any way related to the production of energy. For an Electric Generating Unit generating only electricity, the gross electrical output is the output from the turbine/generator set.

"Input mercury" means the mass of mercury that is contained in the coal combusted within an Electric Generating Unit.

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

"Output-based emission standard" means, with regard to Subpart B of this Part, a maximum allowable rate of emissions of mercury per unit of gross electrical output from an Electric Generating Unit.

"Repowered" means, with regard to an EGU, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

Atmospheric or pressurized fluidized bed combustion;

Integrated gasification combined cycle;

Magnetohydrodynamics;

Direct and indirect coal-fired turbines;

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Integrated gasification fuel cells; or

As determined by the USEPA in consultation with the United States Department of Energy, a derivative of one or more of the technologies under this definition and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

"Rolling 12-month basis" means, with regard to Subpart B of this Part, a determination made on a monthly basis from the relevant data for a particular calendar month and the preceding 11 calendar months (total of 12 months of data), with two exceptions. For determinations involving one EGU, calendar months in which the EGU does not operate (zero EGU operating hours) shall not be included in the determination, and shall be replaced by a preceding month or months in which the EGU does operate, so that the determination is still based on 12 months of data. For determinations involving two or more EGUs, calendar months in which none of the EGUs covered by the determination operates (zero EGU operating hours) shall not be included in the determination, and shall be replaced by preceding months in which at least one of the EGU covered by the determination does operate, so that the determination is still based on 12 months of data.

Section 225.140      Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

- a) 40 CFR Part 60, § 60.17, § 60.45a, § 60.49a(k)(1), § 60.49a(p), § 60.50a(h), and §§ 60.4170 through 60.4176 (2005).
- b) 40 CFR Part 75 (2005).
- c) ASTM. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959 (610) 832-9585:

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- 1) ASTM D388-77, 90, 91, 95, 98a, or 99, Classification of Coals by Rank (Reapproved 2004).
- 2) ASTM D3173-03, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke (Approved April 10, 2003).
- 3) ASTM D3684-01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method (Approved October 10, 2001).
- 4) ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke (Approved April 1, 2004).
- 5) ASTM D6414-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold Vapor Atomic Absorption (Approved October 10, 2001).
- 6) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) (Approved April 10, 2002).

**SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED  
ELECTRIC GENERATING UNITS**

Section 225.200 Purpose

The purpose of this Subpart is to control the emissions of mercury from coal-fired electrical generating units in Illinois.

Section 225.202 Measurement Methods

Measurement of mercury shall be according to the following:

- a) Continuous emission monitoring pursuant to 40 CFR Part 75 (2005).
- b) ASTM D3173-03, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke (Approved April 10, 2003).

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- c) ASTM D3684-01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method (Approved October 10, 2001).
- d) ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke (Approved April 1, 2004).
- e) ASTM D6414-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold Vapor Atomic Absorption (Approved October 10, 2001).
- f) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) (Approved April 10, 2002).

Section 225.205      Applicability

The following stationary coal-fired boilers and stationary coal-fired combustion turbines are EGUs and are subject to this Subpart:

- a) Except as provided in subsection (b) of this Section, a unit serving at any time since the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale.
- b) 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 serving at any time a generator with nameplate capacity of more than 25 MWe 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 subsection (a) of this Section starting on the day on which the unit first no longer qualifies as a cogeneration unit.

Section 225.210      Compliance Requirements

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a) Permit Requirements

The owner or operator of each source with one or more EGUs subject to this Subpart at the source must apply for a CAAPP permit that addresses the applicable requirements of this Subpart.

b) Monitoring Requirements

- 1) The owner or operator of each source and each EGU at the source must comply with the monitoring requirements of Sections 225.240 through 225.290 of this Subpart.
- 2) The compliance of each EGU with the mercury requirements under Sections 225.230 and 225.237 of this Subpart shall be determined by the emissions measurements recorded and reported in accordance with Sections 225.240 through 225.290 of this Subpart.

c) Mercury Emission Reduction Requirements

The owner or operator of any EGU subject to this Subpart shall comply with applicable requirements for control of mercury emissions under Section 225.230 or Section 225.237 of this Subpart.

d) Recordkeeping and Reporting Requirements

Unless otherwise provided, the owner or operator of a source with one or more EGUs at the source shall keep on site at the source each of the documents listed in subsections (d)(1) through (d)(3) of this Section for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Agency.

- 1) All emissions monitoring information, in accordance with Sections 225.240 through 225.290 of this Subpart.
- 2) Copies of all reports, compliance certifications, and other submissions and all records made or required or documents necessary to demonstrate compliance with the requirements of this Subpart.

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- 3) Copies of all documents used to complete a permit application and any other submission under this Subpart.
- e) Liability
- 1) The owner or operator of each source with one or more EGUs shall meet the requirements of this Subpart.
  - 2) Any provision of this Subpart that applies to a source shall also apply to the owner and operator of such source and to the owner and operator of each EGU at the source.
  - 3) Any provision of this Subpart that applies to an EGU shall also apply to the owner and operator of such EGU.
- f) Effect on Other Authorities. No provision of this Subpart shall be construed as exempting or excluding the owner and operator of a source or EGU from compliance with any other provision of an approved State Implementation Plan, a permit, the Act, or the CAA.

Section 225.220 Clean Air Act Permit Program (CAAPP) Permit Requirements

- a) Application Requirements
- 1) Each source with one or more EGUs subject to the requirements of this Subpart is required to submit a CAAPP permit application that addresses all applicable requirements of this Subpart, applicable to each EGU at the source.
  - 2)
    - A) For EGUs that commenced commercial operation on or before December 31, 2008, the owner or operator of such EGUs must submit an initial permit application or application for CAAPP permit modification that meets the requirements of this Section by December 31, 2008.
    - B) For any EGU that commences commercial operation after December 31, 2008, the owner or operator of any such EGU must submit an initial CAAPP permit application or

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application for CAAPP modification that meets the requirements of this Section not later than 180 days before initial startup of the EGU unless the construction permit issued for the EGU addresses the requirements of this Subpart.

b) Contents of Permit Applications

In addition to other information required for a complete application for CAAPP permit or CAAPP permit modification, the application shall include the following information:

- 1) The ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration, if applicable.
- 2) Identification of each EGU at the source.
- 3) The intended approach to the monitoring requirements of Sections 225.240 through 225.290 of this Subpart.
- 4) The intended approach to the mercury emission reduction requirements of Section 225.230 or 225.237 of this Subpart, as applicable.

c) Permit Contents

- 1) Each CAAPP permit issued by the Agency for a source with one or more EGUs subject to the requirements of this Subpart shall contain federally enforceable conditions addressing all applicable requirements of this Subpart, which conditions shall be a complete and segregable portion of the source's entire CAAPP permit.
- 2) In addition to conditions related to the applicable requirements of this Subpart, each such CAAPP permit shall also contain the information specified under subsection (b) of this Section.

Section 225.230 Emission Standards for EGUs at Existing Sources

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- a) 1) Beginning July 1, 2009, the owner or operator of a source with one or more EGUs subject to this Subpart that commenced commercial operation on or before December 31, 2008, shall comply with one of the following standards for each EGU on a rolling 12-month basis:
- A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
- B) A minimum 90-percent reduction of input mercury.
- 2) For an EGU complying with subsection (a)(1)(A) of this Section, the actual mercury emission rate of the EGU for each 12-month rolling period, as monitored in accordance with this Subpart and calculated as follows, shall not exceed the applicable emission standard:

$$ER = \sum_{i=1}^{12} E_i \div \sum_{i=1}^{12} O_i$$

Where:

*ER* = Actual mercury emissions rate of the EGU for the particular 12-month rolling period, expressed in lb/GWh.

*E<sub>i</sub>* = Actual mercury emissions of the EGU, in lbs, in an individual month in the 12-month rolling period, as determined in accordance with the emissions monitoring provisions of this Subpart.

*O<sub>i</sub>* = Gross electrical output of the EGU, in GWh, in an individual month in the 12-month rolling period, as determined in accordance with Section 225.263 of this Subpart.

- 3) For an EGU complying with subsection (a)(1)(B) of this Section, the actual control efficiency for mercury emissions achieved by the EGU for each 12-month rolling period, as monitored in accordance with this Subpart and calculated as follows, shall meet or exceed the applicable efficiency requirement:

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$$CE = 100 \times \left\{ 1 - \left( \frac{\sum_{i=1}^{12} E_i}{\sum_{i=1}^{12} I_i} \right) \right\}$$

Where:

$CE$  = Actual control efficiency for mercury emissions of the EGU for the particular 12-month rolling period, expressed as a percent.

$E_i$  = Actual mercury emissions of the EGU, in lbs, in an individual month in the 12-month rolling period, as determined in accordance with the emissions monitoring provisions of this Subpart.

$I_i$  = Amount of mercury in the fuel fired in the EGU, in pounds, in an individual month in the 12-month rolling period, as determined in accordance with Section 225.265 of this Subpart.

- b) 1) As an alternative to compliance with one of the above emission standards in subsection (a) of this Section, the owner or operator of the EGU may comply with the emission standards of this Subpart by demonstrating that the actual emissions of mercury from the EGU are less than the allowable emissions of mercury from the EGU on a rolling 12-month basis.
- 2) For this purpose, for each rolling 12-month period, the actual emissions of mercury from the EGU, as monitored in accordance with this Subpart, must not exceed the allowable emissions of mercury from the EGU, as further provided by the following formulas:

$$E_{12} \leq A_{12}$$

$$E_{12} = \sum_{i=1}^{12} E_i$$

$$A_{12} = \sum_{i=1}^{12} A_i$$

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Where:

$E_{12}$  = Actual mercury emissions of the EGU for the particular 12-month rolling period.

$A_{12}$  = Allowable mercury emissions of the EGU for the particular 12-month rolling period.

$E_i$  = Actual mercury emissions of the EGU in an individual month in the 12-month rolling period.

$A_i$  = Allowable mercury emissions of the EGU in an individual month in the 12-month rolling period, based on either the input mercury to the unit ( $A_{Input\ i}$ ) or the electrical output from the EGU ( $A_{Output\ i}$ ), as selected by the owner or operator of the EGU for that given month.

$A_{Input\ i}$  = Allowable mercury emissions of the EGU in an individual month based on the input mercury to the EGU, calculated as 10.0 percent (or 0.100) of the input mercury to the EGU.

$A_{Output\ i}$  = Allowable mercury emissions of the EGU in a particular month based on the electrical output from the EGU, calculated as the product of the output based mercury limit, i.e., 0.0080 lb/GWh, and the electrical output from the EGU, in GWh.

- 3) If the owner or operator of an EGU does not conduct the necessary sampling, analysis, and recordkeeping, in accordance with Section 225.265 of this Subpart, to determine the mercury input to the EGU, the allowable emissions of the EGU must be calculated based on the electrical output of the EGU.
- c) If two or more EGUs are served by common stack(s) and the owner or operator conducts monitoring for mercury emissions in the common stack(s), as provided for by 40 CFR Part 75, Subpart I, such that the mercury emissions of each EGU are not determined separately, compliance of the EGUs with the applicable emission standards of this Subpart shall be determined as if the EGUs were a single EGU.
  - d)
    - 1) As an alternative to compliance with the emission standards of subsection (a) of this Section, the owner or operator of a source with an EGU may comply with the emission standards of this Subpart by demonstrating that the actual emissions of mercury from all EGUs at the source are less than the allowable emissions

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of mercury from all EGUs at the source on a rolling 12-month basis.

- 2) For this purpose, for each rolling 12-month period, the actual emissions of mercury from all the EGUs at the source, as monitored in accordance with this Subpart, must not exceed the sum of the allowable emissions of mercury from all the EGUs at the source, as further provided by the following formulas:

$$E_S \leq A_S$$

$$E_S = \sum_{i=1}^n E_i$$

$$A_S = \sum_{i=1}^n A_i$$

Where:

$E_S$  = Sum of the actual mercury emissions of the EGUs at the source.

$A_S$  = Sum of the allowable mercury emissions of the EGUs at the source.

$E_i$  = Actual mercury emissions of an individual EGU at the source, as determined in accordance with subsection (b)(2) of this Section.

$A_i$  = Allowable mercury emissions of an individual EGU at the source, as determined in accordance with subsection (b)(2) of this Section.

$n$  = Number of EGUs covered by the demonstration.

- 3) If an owner or operator of a source with two or more EGUs that is relying on this subsection to demonstrate compliance fails to meet the requirements of this subsection in a given 12-month rolling period, all EGUs at such source covered by the compliance demonstration are considered out of compliance with the applicable emission standards of this Subpart for the entire last month of that period.

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- a) Through December 31, 2013, as an alternative to compliance with the emission standards of Section 225.230(a) of this Subpart, the owner or operator of an EGU may comply with the emission standards of this Subpart by means of an Averaging Demonstration (Demonstration) that shows that the actual emissions of mercury from the EGU and other EGUs at the source and other EGUs at other sources covered by the Demonstration are less than the allowable emissions of mercury from all EGUs covered by the Demonstration on a rolling 12-month basis.
- b) The EGUs at each source covered by a Demonstration must also comply with one of the following emission standards on a source-wide basis for the period covered by the Demonstration:
  - 1) An emission standard of 0.020 lb mercury/GWh gross electrical output; or
  - 2) A minimum 75-percent reduction of input mercury.
- c) For the purpose of this Section, compliance shall be determined using the equations in Section 225.230(a)(2), (a)(3), or (d)(2) of this Subpart, as applicable, addressing all EGUs at the sources covered by the Demonstration, rather than only EGUs at one source.
- d)
  - 1) The owners or operators of more than one existing source with EGUs can only participate in Demonstrations that include other existing sources that they own or operate.
  - 2)
    - i) The owner or operator of only a single existing source with EGUs (i.e., City, Water, Light & Power, City of Springfield, ID 167120AAO; Electric Energy, Inc., ID 127855AAC; Kincaid Generating Station, ID 021814AAB; and Southern Illinois Power Cooperative/Marion Generating Station, ID 199856AAC) can only participate in Demonstrations with other such owners or operators of a single existing source of EGUs.
    - ii) Participation in Demonstrations under this Section by the owner or operator of only a single existing source with

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EGUs must be authorized through federally enforceable permit conditions for each such source participating in the Demonstration.

- e) A source may be included in only one Demonstration during each rolling 12-month period.
- f) The owner or operator of EGUs using Demonstrations to show compliance with this Subpart must complete the determination of compliance for each 12-month rolling period no later than 60 days following the end of the period.
- g) If averaging is used to demonstrate compliance with this Subpart, the effect of a failure to demonstrate compliance shall be that the compliance status of each source shall be determined under Section 225.230 of this Subpart as if the sources were not covered by a Demonstration.
- h) For purposes of this Section, if the owner or operator of any source that participates in a Demonstration with an owner or operator of a source that does not maintain the required records, data, and reports for the EGUs at the source, or does not submit copies of such records, data, or reports to the Agency upon request, then the effect of this failure will be deemed to be a failure to demonstrate compliance and the compliance status of each source shall be determined under Section 225.230 of this Subpart as if the sources were not covered by a Demonstration.

Section 225.235      Units Scheduled for Permanent Shut Down

- a) The emission standards of Section 225.230(a) of this Subpart are not applicable to an EGU that will be permanently shut down as further specified below:
  - 1) The owner or operator of an EGU for which this Section is being relied upon shall by no later than June 30, 2009:
    - A) Have notified the Illinois EPA that it is planning to permanently shut down the EGU by the applicable date specified in subsection (a)(3) or (4) of this Section. This notification shall be accompanied by a description of the

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actions that have already been taken to allow the shut down of the EGU and a description of the future actions that must be accomplished to complete the shut down of the EGU, with the anticipated schedule for those actions and the anticipated date of permanent shutdown of the unit.

- B) Have applied for a construction permit or be actively pursuing a federally enforceable agreement that requires the EGU to be permanently shut down in accordance with this Section.
  - C) Have applied for revisions to the operating permit(s) for the EGU to include provisions that terminate the authorization to operate the unit in accordance with this Section.
- 2) The owner or operator of an EGU for which this Section is being relied upon shall by no later than June 30, 2010:
- A) Have obtained a construction permit or entered into a federally enforceable agreement as addressed by subsection (a)(1)(B) of this Section; or
  - B) Have obtained revised operating permit(s) in accordance with subsection (a)(1)(C) of this Section.
- 3) The plan for permanent shut down of the EGU must provide for the EGU to be permanently shut down by no later than the applicable date specified below:
- A) If the owner or operator of the EGU is not constructing a new EGU or other generating units to specifically replace the existing EGU, by December 31, 2010.
  - B) If the owner or operator of the EGU is constructing a new EGU or other generating units to specifically replace the existing EGU, by December 31, 2011.
- 4) The owner or operator of the EGU must permanently shut down the EGU by the date specified in subsection (a)(3) of this Section,

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unless the owner or operator submits a demonstration to the Illinois EPA before such date showing that circumstances beyond its reasonable control (such as protracted delays in construction activity, unanticipated outage of another EGU, or protracted shakedown of a replacement unit) have occurred that interfere with the plan for permanent shut down of the EGU, in which case the date for shut down of the EGU may be extended as follows:

- A) If the owner or operator of the EGU is not constructing a new EGU or other generating units to specifically replace the existing EGU, for up to one year, i.e., permanent shut down of the EGU to occur by no later than December 31, 2011.
  - B) If the owner or operator of the EGU is constructing a new EGU or other generating units to specifically replace the existing EGU, for up to 18 months, i.e., permanent shutdown of the EGU to occur by no later than June 30, 2013, provided, however, that after December 31, 2012, the existing EGU shall only operate as a back-up unit to address periods when the new generating units are not in service.
- b) Notwithstanding Sections 225.230 and 225.232 of this Subpart, any EGU that is not required to comply with Section 225.230 of this Subpart pursuant to this Section shall not be included when determining whether any other EGUs at the source or other sources are in compliance with Section 225.230 of this Subpart.
  - c) If an EGU for which the owner or operator of the source has relied upon this Section in lieu of complying with Section 225.230(a) of this Subpart is not permanently shut down as required by this Section, the EGU shall be considered to be a new EGU subject to the emission standards in Section 225.237(a) of this Subpart beginning in the month after the EGU was required to be permanently shut down, in addition to any other penalties that may be imposed for failure to permanently shut down the EGU in accordance with this Section.

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Section 225.237 Emission Standards for New Sources with EGUs

- a) 1) The owner or operator of a source with one or more EGUs, but that previously had not had any EGUs that commenced commercial operation before January 1, 2009, shall comply with one of the following emission standards for each EGU on a rolling 12-month basis:
  - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
  - B) A minimum 90-percent reduction of input mercury.
- 2) For this purpose, compliance may be demonstrated using the equations in Section 225.230(a)(2), (a)(3), or (b)(2) of this Subpart.
- b) The initial 12-month rolling period for which compliance with the emission standards of subsection (a)(1) of this Section must be demonstrated for a new EGU shall commence on the date that the initial performance test for the mercury emission standard under 40 CFR 60.45a also commences. The continuous emission monitoring systems required by this Subpart for mercury emissions from the EGU must be certified prior to this date. Thereafter, compliance shall be demonstrated on a rolling-12 month basis in terms of calendar months.

Section 225.240 General Monitoring and Reporting Requirements

The owner or operator of an EGU shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75. If the EGU utilizes a common stack with units that are not EGUs and the owner or operator of the EGU does not conduct emissions monitoring in the duct to the common stack from each EGU, the owner or operator of the EGU shall conduct emissions monitoring in accordance with 40 CFR 75.82(b)(2) and this Section, including monitoring in the duct to the common stack from each unit that is not an EGU, unless the owner or operator of the EGU counts the combined emissions measured at the common stack as the mass emissions of mercury for the EGUs for recordkeeping and compliance purposes.

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- a) Requirements for installation, certification, and data accounting. The owner or operator of each EGU shall:
- 1) Install all monitoring systems required under this Section and Sections 225.250 through 225.290 of this Subpart for monitoring mercury mass emissions (including all systems required to monitor mercury concentration, stack gas moisture content, stack gas flow rate, and CO<sub>2</sub> or O<sub>2</sub> concentration, as applicable, in accordance with 40 CFR 75.81 and 75.82);
  - 2) Successfully complete all certification tests required under Section 225.250 and meet all other requirements of this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75 applicable to the monitoring systems required under subsection (a)(1) of this Section; and
  - 3) Record, report, and quality-assure the data from the monitoring systems required under subsection (a)(1) of this Section.
  - 4) If the owner or operator elects to use the low mass emissions excepted monitoring methodology for an EGU that emits no more than 464 ounces (29 pounds) of mercury per year pursuant to 40 CFR 75.81(b), also perform emissions testing in accordance with 40 CFR 75.81(c) to demonstrate that the EGU is eligible to use this excepted emissions monitoring methodology as well as comply with all other applicable requirements of 40 CFR 75.81(b) through (f), and submit a copy of any information required to be submitted to the USEPA under these provisions to the Illinois EPA. The initial emissions testing to demonstrate eligibility of an EGU for the low mass emissions excepted methodology shall be conducted by the following dates:
    - A) If the EGU has commenced commercial operation before July 1, 2008, at least by January 1, 2009, or 45 days prior to relying on the low mass emissions excepted methodology, whichever date is later.
    - B) If the EGU has commenced commercial operation on or after July 1, 2008, at least 45 days prior to the applicable

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date specified under subsection (b)(2) of this Section or 45 days prior to relying on the low mass emissions excepted methodology, whichever date is later

- b) Emissions monitoring deadlines. The owner or operator shall meet the emissions monitoring system certification and other emissions monitoring requirements of subsections (a)(1) and (a)(2) of this Section on or before the following dates. The owner or operator shall record, report, and quality-assure the data from the emissions monitoring systems required under subsection (a)(1) of this Section on and after the following dates:
- 1) For the owner or operator of an EGU that commences commercial operation before July 1, 2008, by January 1, 2009.
  - 2) For the owner or operator of an EGU that commences commercial operation on or after July 1, 2008, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the EGU commences commercial operation.
  - 3) For the owner or operator of an EGU for which construction of a new stack or flue or installation of add-on mercury emission controls, a flue gas desulfurization system, a selective catalytic reduction system, a fabric filter, or a compact hybrid particulate collector system is completed after the applicable deadline under subsection (b)(1) or (2) of this Section, by 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which emissions first exit to the atmosphere through the new stack or flue, add-on mercury emissions controls, flue gas desulfurization system, selective catalytic reduction system, a fabric filter, or compact hybrid particulate collector system.
- c) Reporting data
- 1) Except as provided in subsection (c)(2) of this Section, the owner or operator of an EGU that does not meet the applicable emissions monitoring date set forth in subsection (b) of this Section for any emissions monitoring system required under subsection (a)(1) of this Section shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate,

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minimum potential) values for mercury concentration, stack gas flow rate, stack gas moisture content, and any other parameters required to determine mercury mass emissions in accordance with 40 CFR 75.80(g).

- 2) The owner or operator of an EGU that does not meet the applicable emissions monitoring date set forth in subsection (b)(3) of this Section for any emissions monitoring system required under subsection (a)(1) of this Section shall, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in 40 CFR 75.80(f), in lieu of the maximum potential (or, as appropriate, minimum potential) values, for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation under subsection (b)(3) of this Section.
- d) Prohibitions
- 1) No owner or operator of an EGU shall use any alternative emissions monitoring system, alternative reference method for measuring emissions, or any other alternative to the emissions monitoring and measurement requirements of this Section and Sections 225.250 through 225.290 of this Subpart, unless such alternative is promulgated by the USEPA and approved in writing by the Agency or the use of such alternative is approved in writing by the Agency and USEPA.
  - 2) No owner or operator of an EGU shall operate the EGU so as to discharge, or allow to be discharged, mercury emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75.
  - 3) No owner or operator of an EGU shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording mercury mass emissions discharged into

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the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75.

- 4) No owner or operator of an EGU shall retire or permanently discontinue use of the continuous emission monitoring system or any component thereof, or any other approved monitoring system under this Subpart, except under any one of the following circumstances:
  - A) The owner or operator is monitoring emissions from the EGU with another certified monitoring system that has been approved, in accordance with the applicable provisions of this Section, Sections 225.250 through 225.290 of this Subpart, and Subpart I of 40 CFR Part 75, by the Agency for use at that EGU and that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or
  - B) The owner or operator or designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with Section 225.250(a)(3)(A) of this Subpart.
- e) Long-term cold storage

The owner or operator of an EGU that is in long-term cold storage is subject to the applicable provisions of 40 CFR Part 75 for monitoring, recordkeeping, and reporting for units in long-term cold storage.

Section 225.250      Initial Certification and Recertification Procedures for Emissions Monitoring

- a) The owner or operator of an EGU shall comply with the following initial certification and recertification procedures for a continuous emissions monitoring system (i.e., a continuous emission monitoring system or an

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excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15) required by Section 225.240(a)(1). The owner or operator of an EGU that qualifies for and for which the owner or operator elects to use the low mass emissions excepted methodology under 40 CFR 75.81(b) shall comply with the procedures in subsection (c) of this Section.

- 1) Requirements for initial certification. The owner or operator of an EGU shall ensure that for each continuous emissions monitoring system required by Section 225.240(a)(1) of this Subpart (including the automated data acquisition and handling system) the owner or operator successfully completes all of the initial certification testing required under 40 CFR 75.80(d) by the applicable deadline in Section 225.240(b) of this Subpart. In addition, whenever the owner or operator of an EGU installs a monitoring system to meet the requirements of this Subpart in a location where no such monitoring system was previously installed, the owner or operator must successfully complete the initial certification requirements of 40 CFR 75.80(d).
- 2) Requirements for recertification. Whenever the owner or operator of an EGU makes a replacement, modification, or change in any certified continuous emission monitoring system, or an excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15, and required by Section 225.240(a)(1) of this Subpart, that may significantly affect the ability of the system to accurately measure or record mercury mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or Appendix B to 40 CFR Part 75, the owner or operator of an EGU shall recertify the monitoring system in accordance with 40 CFR 75.20(b). Furthermore, whenever the owner or operator of an EGU makes a replacement, modification, or change to the flue gas handling system or the EGU's operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system, and each excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15, whose accuracy is potentially affected by the change, all in accordance with 40 CFR 75.20(b). Examples of changes to a continuous emission monitoring system that require recertification include

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replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.

- 3) Approval process for initial certification and recertification. Subsections (a)(3)(A) through (D) of this Section apply to both initial certification and recertification of a continuous monitoring system required by Section 225.240(a)(1) of this Subpart. For recertifications, replace the words “certification” and “initial certification” with the word “recertification,” replace the word “certified” with the word “recertified,” and follow the procedures in 40 CFR 75.20(b)(5) in lieu of the procedures in subsection (a)(3)(E) of this Section.
  - A) Notification of certification. The owner or operator shall submit to the Agency, USEPA Region 5, and the Administrator of the USEPA written notice of the dates of certification testing, in accordance with Section 225.270 of this Subpart.
  - B) Certification application. The owner or operator shall submit to the Agency a certification application for each monitoring system. A complete certification application shall include the information specified in 40 CFR 75.63.
  - C) Provisional certification date. The provisional certification date for a monitoring system shall be determined in accordance with 40 CFR 75.20(a)(3). A provisionally certified monitoring system may be used under this Subpart for a period not to exceed 120 days after receipt by the Agency of the complete certification application for the monitoring system under subsection (a)(3)(B) of this Section. Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of 40 CFR Part 75, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the Agency does not invalidate the provisional certification by issuing a

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notice of disapproval within 120 days of the date of receipt by the Agency of the complete certification application.

- D) Certification application approval process. The Agency will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application required by subsection (a)(3)(B) of this Section. In the event the Agency does not issue such a notice within such 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application will be deemed certified for use under this Subpart.
- i) Approval notice. If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, then the Agency will issue a written notice of approval of the certification application within 120 days of receipt.
  - ii) Incomplete application notice. If the certification application is not complete, then the Agency will issue a written notice of incompleteness that sets a reasonable date by which the owner or operator must submit the additional information required to complete the certification application. If the owner or operator does not comply with the notice of incompleteness by the specified date, then the Agency may issue a notice of disapproval under subsection (a)(3)(D)(iii) of this Section. The 120-day review period shall not begin before receipt of a complete certification application.
  - iii) Disapproval notice. If the certification application shows that any monitoring system does not meet the performance requirements of 40 CFR Part 75 or if the certification application is incomplete and the requirement for disapproval under subsection

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(a)(3)(D)(ii) of this Section is met, then the Agency will issue a written notice of disapproval of the certification application. Upon issuance of such notice of disapproval, the provisional certification is invalidated by the Agency and the data measured and recorded by each uncertified monitoring system shall not be considered valid quality-assured data beginning with the date and hour of provisional certification (as defined under 40 CFR 75.20(a)(3)). The owner or operator shall follow the procedures for loss of certification in subsection (a)(3)(E) of this Section for each monitoring system that is disapproved for initial certification.

- iv) Audit decertification. The Agency may issue a notice of disapproval of the certification status of a monitor in accordance with Section 225.260(b) of this Subpart.
- E) Procedures for loss of certification. If the Agency issues a notice of disapproval of a certification application under subsection (a)(3)(D)(iii) of this Section or a notice of disapproval of certification status under subsection (a)(3)(D)(iv) of this Section, then:
  - i) The owner or operator shall substitute the following values, for each disapproved monitoring system, for each hour of EGU operation during the period of invalid data specified under 40 CFR 75.20(a)(4)(iii) or 75.21(e) and continuing until the applicable date and hour specified under 40 CFR 75.20(a)(5)(i):
    - I) For a disapproved mercury pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential concentration of mercury and the maximum potential flow rate, as defined in Sections 2.1.7.1 and 2.1.4.1 of Appendix A to 40 CFR Part 75.

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- II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO<sub>2</sub> concentration or the minimum potential O<sub>2</sub> concentration (as applicable), as defined in Sections 2.1.5, 2.1.3.1, and 2.1.3.2 of Appendix A to 40 CFR Part 75.
  - III) For a disapproved excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15 and disapproved flow monitor, respectively, the maximum potential concentration of mercury and maximum potential flow rate, as defined in Sections 2.1.7.1 and 2.1.4.1 of Appendix A to 40 CFR Part 75.
    - ii) The owner or operator shall submit a notification of certification retest dates and a new certification application in accordance with subsections (a)(3)(A) and (B) of this Section.
    - iii) The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Agency's notice of disapproval, no later than 30 unit operating days after the date of issuance of the notice of disapproval.
- b) 1) If an emissions monitoring system has been previously certified in accordance with 40 CFR Part 75 and the applicable quality assurance and quality control requirements of 40 CFR 75.21 and Appendix B to 40 CFR Part 75 are fully met, the monitoring system shall be exempt from the initial certification requirements of this Section.

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- 2) The recertification provisions of this Section shall apply to an emissions monitoring system required by Section 225.240(a)(1) of this Subpart exempt from initial certification requirements under subsection (a)(1) of this Section.
- c) Initial certification and recertification procedures for EGUs using the mercury low mass emissions excepted methodology under 40 CFR 75.81(b). The owner or operator of an EGU qualified to use the mercury low mass emissions excepted methodology under 40 CFR 75.81(b) shall meet the applicable certification and recertification requirements in 40 CFR 75.81(c) through (f).
- d) Certification Applications. The owner or operator of an EGU shall submit an application to the Agency within 45 days after completing all initial certification or recertification tests required under this Section, including the information required under 40 CFR 75.63.

Section 225.260 Out of Control Periods for Emission Monitors

- a) Whenever any emissions monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable missing data procedures in Subparts D and I of 40 CFR Part 75.
- b) Audit decertification. Whenever both an audit of an emissions monitoring system and a review of the initial certification or recertification application reveal that any emissions monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under Section 225.250 of this Subpart or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Agency will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this subsection, an audit shall be either a field audit or an audit of any information submitted to the Agency. By issuing the notice of disapproval, the Agency revokes prospectively the certification status of the emissions monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status

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until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable initial certification or recertification procedures in Section 225.250 of this Subpart for each disapproved monitoring system.

Section 225.261 Additional Requirements to Provide Heat Input Data

The owner or operator of an EGU that monitors and reports mercury mass emissions using a mercury concentration monitoring system and a flow monitoring system shall also monitor and report heat input rate at the EGU level using the procedures set forth in 40 CFR Part 75.

Section 225.263 Monitoring of Gross Electrical Output

The owner or operator of an EGU complying with this Subpart by means of Section 225.230(a)(1) or using electrical output ( $O_i$ ) and complying by means of Section 225.230(b) or (d) or Section 225.232 of this Subpart shall monitor gross electrical output of the associated generator(s) in MWh on an hourly basis.

Section 225.265 Coal Analysis for Input Mercury Levels

- a) The owner or operator of an EGU complying with this Subpart by means of Section 225.230(a)(2) or using input mercury levels ( $I_i$ ) and complying by means of Section 225.230(b) or (d) or Section 225.232 of this Subpart shall:
  - 1) Perform daily sampling of the coal combusted in the EGU for mercury content. The owner or operator of such EGU shall collect a minimum of one 2-lb grab sample per day of operation from the belt feeders anywhere between the crusher house or breaker building and the boiler. Such sample shall be taken in such a manner so as to provide a representative mercury content for the coal burned on that day.
  - 2) Analyze the grab coal sample for the following:
    - A) Determine the heat content using ASTM D5865-04 or equivalent approved in writing by the Agency.

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- B) Determine the moisture content using ASTM D3173-03 or equivalent approved in writing by the Agency.
  - C) Measure the mercury content using ASTM D6414-01, ASTM D3684-01, or equivalent approved in writing by the Agency.
- 3) The owner or operator of multiple EGUs at the same source using the same crusher house or breaker building may take one sample per crusher house or breaker building, rather than one per EGU.
  - 4) The owner or operator of an EGU shall use the data analyzed under subsection (b) of this Section to determine the mercury content in terms of lbs/trillion Btu.
- b) The owner or operator of an EGU that must conduct sampling and analysis of coal pursuant to subsection (a) of this Section, shall begin such activity by the following date:
    - 1) If the EGU is in daily service, at least 30 days before the start of the month for which such activity will be required.
    - 2) If the EGU is not in daily service, on the day that the EGU resumes operation.

Section 225.270 Notifications

The owner or operator of a source with one or more EGUs shall submit written notice to the Agency according to the provisions in 40 CFR 75.61 for each EGU or group of EGUs monitored at a common stack and each non-EGU monitored under 40 CFR 75.82(b)(2)(ii).

Section 225.290 Recordkeeping and Reporting

- a) General provisions.
  - 1) The owner or operator of an EGU and its designated representative shall comply with all applicable recordkeeping and reporting

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requirements in this Section and with all applicable recordkeeping and reporting requirements of 40 CFR 75.84.

- 2) The owner or operator of an EGU shall maintain records for each month identifying the emission standard in Section 225.230(a) or 225.237(a) of this Section with which it is complying or which is applicable for the EGU and the following records related to the emissions of mercury that the EGU is allowed to emit:
  - A) For an EGU for which the owner or operator is complying with this Subpart by means of Section 225.230(a)(2) or 225.237(a)(1)(B) or using input mercury levels to determine the allowable emissions of the EGU, records of the daily mercury content of coal used (lbs/trillion Btu) and the daily and monthly input mercury (lbs), which shall be kept in the file required under 40 CFR 75.84(a).
  - B) For an EGU for which the owner or operator of an EGU complying with this Subpart by means of Section 225.230(a)(1) or 225.237(a)(1)(A) or using electrical output to determine the allowable emissions of the EGU, records of the daily and monthly gross electrical output (GWh), which shall be kept in the file required under 40 CFR 75.84(a).
- 3) The owner or operator of an EGU shall maintain records of the following for each EGU:
  - A) Monthly emissions of mercury from the EGU.
  - B) For an EGU for which the owner or operator is complying by means of Section 225.230(b) or (d) of this Subpart, records of the monthly allowable emissions of mercury from the EGU.
- 4) The owner or operator of an EGU that is participating in an Averaging Demonstration pursuant to Section 225.232 of this Subpart shall maintain records identifying all sources and EGUs covered by the Demonstration for each month and, within 60 days

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of the end of each calendar month, calculate and record the actual and allowable mercury emissions of the EGU for the month and the applicable 12-month rolling period.

- 5) The owner or operator of an EGU shall maintain the following records related to quality assurance activities conducted for emissions monitoring systems:
    - A) The results of quarterly assessments conducted under Section 2.2 of Appendix B of 40 CFR Part 75; and
    - B) Daily/weekly system integrity checks under Section 2.6 of Appendix B of 40 CFR Part 75.
  - 6) The owner or operator of an EGU shall maintain an electronic copy of all electronic submittals to the USEPA under 40 CFR 75.84(f).
  - 7) The owner or operator of an EGU shall retain all records required by this Section at the source unless otherwise provided in the CAAPP permit issued for the source and shall make a copy of any record available to the Agency upon request.
- b) Quarterly reports. The owner or operator of a source with one or more EGUs shall submit quarterly reports to the Agency as follows:
- 1) These reports shall include the following information for operation of the EGUs during the quarter:
    - A) The total operating hours of each EGU and the mercury CEMS, as also reported in accordance with 40 CFR Part 75.
    - B) A discussion of any significant changes in the measures used to control emissions of mercury from the EGUs or the coal supply to the EGUs, including changes in the source of coal.
    - C) Summary information on the performance of the mercury CEMS. When the mercury CEMS was not inoperative,

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repaired, or adjusted, except for routine zero and span checks, this shall be stated in the report.

- D) If the CEMS downtime was more than 5.0 percent of the total operating time for the EGU: the date and time identifying each period during which the CEMS was inoperative, except for routine zero and span checks; the nature of CEMS repairs or adjustments and a summary of quality assurance data consistent with 40 CFR Part 75, i.e., the dates and results of the Linearity Test(s) and any Relative Accuracy Test Audit(s) during the quarter; a listing of any days when a required daily calibration was not performed; and the date and duration of any periods when the CEMS was out-of-control as addressed by Section 225.260 of this Subpart.
- 2) The owner or operator shall submit each quarterly report to the Agency within 45 days following the end of the calendar quarter covered by the report.
- c) Compliance certification. The owner or operator of a source with one or more EGUs shall submit to the Agency a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the EGUs' emissions are correctly and fully monitored. The certification shall state that:
- 1) The monitoring data submitted were recorded in accordance with the applicable requirements of this Section, Sections 225.240 through 225.270, and Section 225.290 of this Subpart, and 40 CFR Part 75, including the quality assurance procedures and specifications; and
- 2) For an EGU with add-on mercury emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system and for all hours where mercury data are substituted in accordance with 40 CFR 75.34(a)(1):

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- (A)(i) The mercury add-on emission controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system were operating within the range of parameters listed in the quality assurance/quality control program under Appendix B to 40 CFR Part 75; or
  - ii) With regard to a flue gas desulfurization system or a selective catalytic reduction system, quality-assured SO<sub>2</sub> emission data recorded in accordance with 40 CFR Part 75 document that the flue gas desulfurization system was operating properly, or quality-assured NO<sub>x</sub> emission data recorded in accordance with 40 CFR Part 75 document that the selective catalytic reduction system, was operating properly, as applicable; and
  - B) The substitute data values do not systematically underestimate mercury emissions.
- d) Annual Certification of Compliance
- 1) The owner or operator of a source with one or more EGUs subject to this Subpart shall submit to the Agency an Annual Certification of Compliance with this Subpart no later than May 1 of each year and shall address compliance for the previous calendar year. Such certification shall be submitted to the Agency, Air Compliance and Enforcement Section, and the Air Regional Field Office.
  - 2) Annual Certifications of Compliance shall indicate whether compliance existed for each EGU for each month in the year covered by the Certification and certification to that effect. In addition, for each EGU, the owner or operator shall provide the following:
    - A) If complying with this Subpart by means of Section 225.230(a)(1)(A) or 225.237(a)(1)(A):

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- i) Actual emissions rate, in lb/GWh, for each 12-month rolling period ending in the year covered by the Certification;
  - ii) Actual emissions, in lbs, and gross electrical output, in GWh, for each 12-month rolling period ending in the year covered by the Certification; and
  - iii) Actual emissions, in lbs, and gross electrical output, in GWh, for each month in the year covered by the Certification and in the previous year.
- B) If complying with this Subpart by means of Section 225.230(a)(1)(B) or 225.237(a)(1)(B):
- i) Actual control efficiency for emissions for each 12-month rolling period ending in the year covered by the Certification, expressed as a percent;
  - ii) Actual emissions, in lbs, and mercury content in the fuel fired in such EGU, in lbs, for each 12-month rolling period ending in the year covered by the Certification; and
  - iii) Actual emissions, in lbs, and mercury content in the fuel fired in such EGU, in lbs, for each month in the year covered by the Certification and in the previous year.
- C) If complying with this Subpart by means of Section 225.230(b):
- i) Actual emissions and allowable emissions for each 12-month rolling period ending in the year covered by the Certification; and
  - ii) Actual emissions and allowable emissions, and which standard of compliance the owner or operator

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was utilizing for each month in the year covered by the Certification and in the previous year.

- D) If complying with this Subpart by means of Section 225.230(d):
    - i) Actual emissions and allowable emissions for all EGUs at the source for each 12-month rolling period ending in the year covered by the Certification; and
    - ii) Actual emissions and allowable emissions, and which standard of compliance the owner or operator was utilizing for each month in the year covered by the Certification and in the previous year.
  - E) If complying with this Subpart by means of Section 225.232:
    - i) Actual emissions and allowable emissions for all EGUs at the source in an Averaging Demonstration for each 12-month rolling period ending in the year covered by the Certification; and
    - ii) Actual emissions and allowable emissions, with the standard of compliance the owner or operator was utilizing for each EGU at the source in an Averaging Demonstration for each month for all EGUs at the source in an Averaging Demonstration in the year covered by the Certification and in the previous year.
  - F) Any deviations, data substitutions, or exceptions each month and discussion of the reasons for such deviations, data substitutions, or exceptions.
- 3) All Annual Certifications of Compliance required to be submitted shall include the following certification by a responsible official:

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

- 4) The owner or operator of an EGU shall submit its first Annual Certification of Compliance to address calendar year 2009 or the calendar year in which the EGU commences commercial operation, whichever is later. Notwithstanding subsection (d)(2) of this Section, in the Annual Certifications of Compliance that are required to be submitted by May 1, 2010, and May 1, 2011, to address calendar years 2009 and 2010, respectively, the owner or operator is not required to provide 12-month rolling data for any period that ends before June 30, 2010.
- e) Deviation reports. For each EGU, the owner or operator shall promptly notify the Agency of deviations from requirements of this Subpart. At a minimum, these notifications shall include a description of such deviations within 30 days of discovery of the deviations, and a discussion of the possible cause of such deviations, any corrective actions, and any preventative measures taken.
- f) Quality assurance RATA reports. The owner or operator of an EGU shall submit to the Agency, Air Compliance and Enforcement Section, the quality assurance RATA report for each EGU or group of EGUs monitored at a common stack and each non-EGU under 40 CFR 75.82(b)(2)(ii) within 45 days after completing a quality assurance RATA.

Section 225.295 Treatment of Mercury Allowances

Any mercury allowances allocated to the Agency by the USEPA shall be treated as follows:

STATE OF ILLINOIS

COUNTY OF SANGAMON

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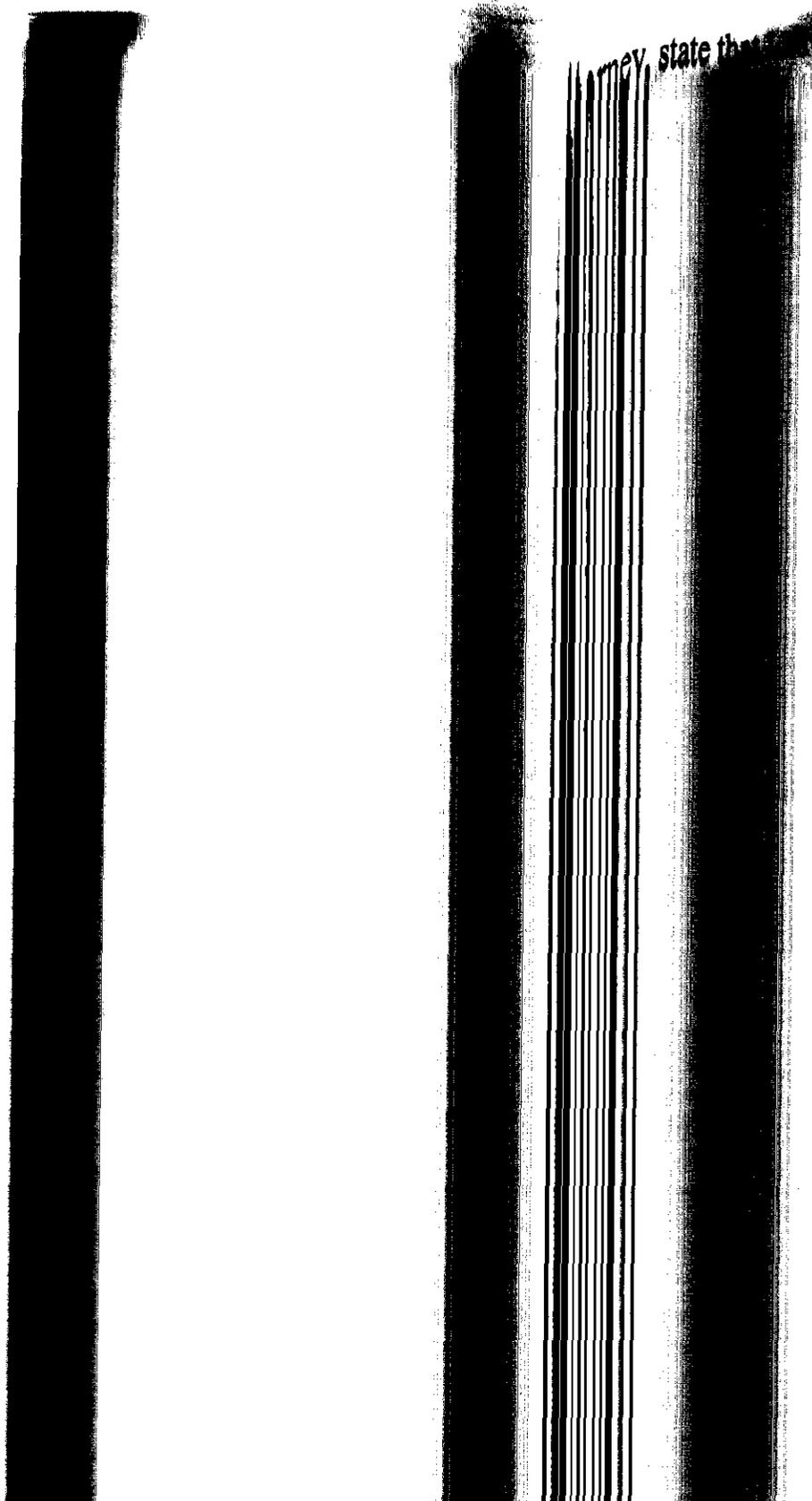
SS

ORIGINAL

R0625

CERTIFICATE OF SERVICE

state that I have served the attached



ORIGINAL

R0625

STATE OF ILLINOIS )  
 )  
COUNTY OF SANGAMON ) SS  
 )

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state that I have served the attached  
RULEMAKING PROPOSAL entitled "PROPOSED NEW 35 ILL. ADM. CODE 225,  
CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES," MOTION  
TO HOLD REQUIRED HEARINGS IN SPRINGFIELD, MOTION FOR WAIVER OF  
COPY REQUIREMENTS, AND APPEARANCES upon the person to whom it is  
directed, by placing a copy in an envelope addressed to:

Dorothy Gunn  
Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph St., Suite 11-500  
Chicago, IL 60601-3218  
(Hand Delivery)

Matthew Dunn  
Chief  
Division of Environmental Enforcement  
Office of the Attorney General  
188 West Randolph St., 20<sup>th</sup> Floor  
Chicago, IL 60601  
(First Class Mail)

Virginia Yang  
Deputy Legal Counsel  
Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62702  
(First Class Mail)

and mailing it from Springfield, Illinois, with sufficient postage affixed, as indicated above.

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY,



John J. Kim  
Managing Attorney  
Air Regulatory Unit  
Division of Legal Counsel

Dated: March 14, 2006

1021 North Grand Avenue East  
Springfield, Illinois 62794-9276  
(217) 782-5544