

07/20/2006

POLLUTION CONTROL BOARD

James R. Thompson Center 100 W. Randolph St., Ste 11-500
Dorothy Gunn
CHICAGO, IL 60601

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CLERK'S OFFICE

JUL 24 2006

STATE OF ILLINOIS
Pollution Control Board

Dear Dorothy Gunn

Your rules Listed below met our codification standards and have been published in Volume 30, Issue 30 of the Illinois Register, dated 07/28/2006.

PROPOSED RULES

Control of Emissions from Large Combustion Sources
35 Ill. Adm. Code 225
Point Of Contact:Erin Conley

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If you have any questions, you may contact the Administrative Code Division at (217) 782 - 7017.

Index Department - Administrative Code Division - 111 East Monroe Springfield, IL 62756

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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) Section Numbers: Proposed Action:

225.234 New Section

225.238 New Section

4) Statutory Authority: 415 ILCS 5/27 (2006)

5) A Complete Description of the Subjects and Issues Involved:

For a more complete description of this proposal see the Board's June 15, 2006, order in Proposed New 35 Ill. Adm. Code 225 Control of Emissions from Large Combustion Sources (Mercury) (R06-25). The Board opened this docket after receipt from the Illinois Environmental Protection Agency (IEPA) of its original March 14, 2006 proposal Subparts A and B to a new Part 225. On May 23, 2006, the IEPA moved to amend its original proposal with supplemental rule text in Subpart B: proposed new Sections 225.234 and 225.238 for a Temporary Technology Based Standard (TTBS).

The TTBS rules are intended to provide additional regulatory flexibility for compliance with the proposed rule. The TTBS, as proposed, addresses both new and existing sources with electrical generating units (EGUs). Those EGUs that satisfy specified eligibility requirements can demonstrate compliance with control requirements for mercury emissions via the TTBS provisions for a specified, and limited, time frame.

IEPA related that it had earlier considered this concept and presented it at several of the stakeholder meetings preceding the March 14, 2006 proposal. After the filing of the original proposal, a number of stakeholders requested IEPA to again consider the provisions of the TTBS. IEPA explained that further review by IEPA's staff and an expert retained by the IEPA identified additional circumstances related to practices and configurations of sources in the State that warrant the proposal of the TTBS.

The Board's June 15, 2006 order accepted the proposed language for public comment, but the Board did not comment on the merits. The proposed new Sections must be read in conjunction with the Board's proposed new Part 225 (published in the *Illinois Register* on May 19, 2006 at 30 Ill. Reg. 9281). The new Part 225 was 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. The

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proposal, as published at first notice, will require Illinois coal-fired electrical generating units (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.

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the IEPA'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 IEPA 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 IEPA. The underlying data used to perform the modeling and the results are also available for review at the Board. The documents are:

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Biermann, J., Higgins, B., Wendt, J.O., Senior, C., Wang, D. "Mercury Reduction at a Coal Fired Power Plant at over 2000 °F Using MinPlus Sorbent Through Furnace Sorbent Injection", 2006 Electric Utilities Environmental Conference, Tucson, AZ, January 22-25, 2006; Available online at <http://www.mobotecusa.com>

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Hutson, N., “Brominated Sorbents: Effects on Emissions of Halogenated Air Toxics”, DOE/NETL’s Mercury Control Technology R&D Program Review, Pittsburgh, PA, July 12-13, 2005.

Illinois Department of Public Health. Environmental Health Fact Sheet – Fish Advisories in Illinois. Illinois Department of Public Health, Division of Environmental Health, Springfield, IL. 2006.

Illinois Environmental Protection Agency. Illinois 2004 Section 303(d) List. IEPA/BOW/04-005. Bureau of Water, Watershed Management Section: Springfield, IL. November 2004.

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Illinois Environmental Protection Agency. DRAFT – Illinois Integrated Water Quality Report and Section 303(d) list – 2006. Clean Water Act Sections 303(d), 305(b) and 314. Water Resource Assessment Information and Listing of Impaired Waters. Bureau of Water, Watershed Management Section, Surface Water Section: Springfield, IL.

Institute of Clean Air Companies, “Status and Capabilities of Mercury Control Technologies,” Presentation to EPA Administrator Leavitt, Washington, D.C., July 20, 2004.

Jenkins, R.E., Burkhead, N.M., 1993. Freshwater Fishes of Virginia. American Fisheries Society. Bethesda, Maryland. Pages 732-736.

Johnson, D., Cummings, J., “TOXECON™ Retrofit for Mercury and Multi-Pollutant Control”, presentation on Clean Coal Power Initiative, downloaded from www.netl.doe.gov

Khan, S. and Srinivasachar, S., “Field Demonstration of Enhanced Sorbent Injection for Mercury Control”, DOE-NETL, Mercury Control Program, Review Meeting, July 12, 2005.

Michigan Electric Utility Workgroup, “Final Report on Mercury Emissions from Coal-Fired Power Plants”, June 20, 2005.

Migler, Paul, VanAten, Chris. “North American Power Plant Air Emissions. Commission for Environmental Cooperation of North America, 2004.

MinPlus Sorbent: Non Carbon Sorbent for Mercury Control in Coal Fired Boilers, August 2005.

National Wildlife Federation, Getting the Job Done: Affordable Mercury Control at Coal-Burning Power Plants, October 2004.

Nelson, S., “Sorbent Technology for Mercury Control”, Pennsylvania Mercury Rule Workgroup Meeting, November 18, 2005.

Nolan, P., Downs, W., Bailey, R., Vecchi, S., “Use of Sulfide Containing Liquors for Removing Mercury from Flue Gases”, U.S. Patent # 6,503,470, January 7, 2003.

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Northeast States for Coordinated Air Use Management (NESCAUM),
“Economic Valuation of Human Health Benefits for Controlling Mercury
Emissions from U.S. Coal-Fired Power Plants”, February 2005.

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“Mercury Emissions from Coal-Fired Power Plants. The Case for
Regulatory Action,” October 2003.

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on the Speciation and Removal of Mercury within a Forced-Oxidized
Limestone Scrubber”, Presented at the Joint EPRI DOE EPA Combined
Utility Air Pollution Control Symposium, The Mega Symposium, August
31-September 2, 2004, Washington, D.C.

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Chang, R., Strohfus M., Smokey, S., Hagley, T., Juip G., Rosvold, R.,
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Western Coals” Presented at the Joint EPRI DOE EPA Combined Utility
Air Pollution Control Symposium, The Mega Symposium, May 19-22,
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Injection for Mercury Control: Quarterly Technical Progress Report”,
Report Period: July 1 – September 30, 2005, Prepared for U.S.
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Pittsburgh, Pennsylvania (Under Contract DE-FC26-04NT42306),
November 8, 2005.

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Starns, T., Amrhein, J., Martin, C., Sjostrom, S., Bullinger, C., Stockdill, D., Strohfus, M., Chang, R., "Full-Scale Evaluation of TOXECON IITM on a Lignite-Fired Boiler", Presented at the Joint EPRI DOE EPA Combined Utility Air Pollution Control Symposium, The Mega Symposium, "August 31-September 2, 2004, Washington, D.C.

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U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological Profile of Mercury. Public Health Service, Atlanta, GA.

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U.S. Environmental Protection Agency. Mercury Study Report to Congress. Health Effects of Mercury and Mercury Compounds. Volume V. (EPA-452/R-97-007). 1997.

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U.S. Environmental Protection Agency, "Engineering and Economic Factors Affecting the Installation of Control Technologies for Multipollutant Strategies", EPA-600/R-02/073, October 2002.

U.S. Environmental Protection Agency, "Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units – Final Report to Congress," EPA-453/R-98-004, February 1998.

U.S. Environmental Protection Agency, 2005, Air Pollution Prevention and Control Division, National Risk Management Research Laboratory, Office of Research and Development, "Control of Mercury Emissions from Coal Fired Electric Utility Boilers: An Update", Research Triangle Park, NC, February 18, 2005.

U.S. Environmental Protection Agency, Emission Generation Resource Grid (eGrid), User's Manual, Prepared by E.H. Pechan & Associates Inc., April 2003; Available Online at:
(<http://www.epa.gov/cleanenergy/egrid/index.htm>)

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U.S. Environmental Protection Agency. Office of Inspector General. Evaluation Report. Additional Analyses of Mercury Emissions Needed Before EPA Finalizes Rules for Coal-Fired Electric Utilities. Report No. 2005-P-00003. February 3, 2005.

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Foerter, David C. Institute of Clean Air Companies. Testimony Before the USEPA on CAIR and CAMR. February 26, 2004.

Illinois Department of Natural Resources. "2006 Illinois Fishing Information." 2006.

Illinois Department of Public Health. 2006. Environmental Health Fact Sheet – Fish Advisories in Illinois. Illinois Department of Public Health, Division of Environmental Health, Springfield, IL

Nelson, Sid, Brickett, Lynn. Large Scale Mercury Control Field Testing-Phase II. "Advanced Utility Mercury-Sorbent Field Testing Program." Progress Report. July 2005.

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Princiotta, F.T., Technical Memorandum, Control of Mercury Emissions from Coal-Fired Utility Boilers. October 25, 2000.

Srivastava, R.K., Staudt, James E., Jozewicz, W. "Preliminary Estimates of Performance and Cost of Mercury Emission Control Technology Applications on Electric Utility Boilers: An Update."

U.S. Environmental Protection Agency. Appendix B Background Material of Methodology Used to Estimate 1999 National Mercury Emissions from Coal-Fired Electric Utility Boilers. Electricity Utility Steam Generating Unit Mercury Emissions Information Collection Effort. September 15, 2000.

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? No
- 9) Does this proposed rule contain incorporations by reference? Yes
- 10) Are there any other proposed rules pending on this Part? Yes, as is explained above, the proposed new Sections in this rulemaking are intended to supplement the Board's proposed new Part 225 which was published on May 19, 2006 at 30 Ill. Reg. 9281.
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b) (2004)].
- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking:

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The Board will accept written public comment on this proposal for 45 days after the date of publication in the *Illinois Register*. Comments should reference Docket R06-25 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

Interested persons may request copies of the Board's opinion and order by calling Dorothy Gunn at 312-814-3620, or download from the Board's Web site at www.ipcb.state.il.us.

The Board held initial hearings in Springfield and received testimony from IEPA in support of both the proposal and the amended proposal on consecutive days from June 12 through 23, 2006. A second round of hearings are scheduled to begin in Chicago on August 14, 2006 at 1:00 pm, Assembly Hall, Concourse Level, James R. Thompson Center, 100 W. Randolph, Chicago, IL 60601. The second round of hearings will be continued day to day until business is complete, but will end no later than August 25, 2006. Other participants, including EGU's, are scheduled to present their testimony in reaction to the proposal; IEPA may also present additional information as allowed by the hearing officer.

For more information contact Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

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.

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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:

The R05-25 mercury rulemaking was summarized in the January 2006 regulatory agenda. The TTBS rules were not specifically mentioned, though, as they are supplemental rules added in response to public comments.

The full text of the Proposed Rule 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) Permit 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
225.234	Temporary Technology-Based Standard for EGUs at Existing Sources
225.237	Emission Standards for New Sources with EGUs
225.238	Temporary Technology-Based Standard 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 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/27].

SOURCE: Adopted at 30 Ill. Reg. _____, effective _____.

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

Section 225.234 Temporary Technology-Based Standard for EGUs at Existing Sources

a) General

- 1) At a source with EGUs that commenced commercial operation on or before December 31, 2008, for an EGU that meets the eligibility criteria in subsection (b) of this Section, as an alternative to compliance with the mercury emission standards in Section 225.230 of this Subpart, the owner or operator of the EGU may temporarily comply with the requirements of this Section, through June 30, 2015, as further provided in subsections (c), (d), and (e) of this Section.
- 2) An EGU that is complying with the emission control requirements of this Subpart by operating under this Section may not be included in a compliance demonstration involving other EGUs during the period that it is operating under this Section.
- 3) The owner or operator of an EGU that is complying with this Subpart by means of this Section is not excused from applicable monitoring, recordkeeping, and reporting requirements in Sections 225.240 through 225.290 of this Subpart.

b) Eligibility

To be eligible to operate an EGU under this Section, the following criteria shall be met for the EGU:

- 1) The EGU is equipped and operated with the air pollution control equipment or systems that include injection of halogenated activated carbon and either (1) a cold-side electrostatic precipitator or (2) a fabric filter.

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- 2) The owner or operator of the EGU is injecting halogenated activated carbon in an optimum manner for control of mercury emissions, which shall include injection of Alstrom, Norit, Sorbent Technologies, or other halogenated activated carbon that the owner or operator of the EGU shows to have similar or better effectiveness for control of mercury emissions, at least at the following rates, unless other provisions for injection of halogenated activated carbon are established in a federally enforceable operating permit issued for the EGU, with an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork. For this purpose, flue gas flow rate shall be determined for the point of sorbent injection, provided, however, that this flow rate may be assumed to be identical to the stack flow rate if the gas temperatures at the point of injection and the stack are normally within 100° F, or may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.
 - A) For an EGU firing subbituminous coal, 5.0 pounds per million actual cubic feet.
 - B) For an EGU firing bituminous coal, 10.0 pounds per million actual cubic feet.
 - C) For an EGU firing a blend of subbituminous and bituminous coal, a rate that is the weighted average of the above rates, based on the blend of coal being fired.
 - D) A rate or rates set on a unit-specific basis that are lower than the rate specified above to the extent that the owner or operator of the EGU demonstrates that such rate or rates are needed so that carbon injection would not increase particulate matter emissions or opacity so as to threaten compliance with applicable regulatory requirements for particulate matter or opacity.
- 3) The total capacity of the EGUs that operate under this Section does not exceed the applicable value below:
 - A) For the owner or operator of more than one existing source with EGUs, 25 percent of the total rated capacity, in MW, of all the EGUs at such existing sources that it owns or operates, other than any EGUs operating pursuant to Section 225.235 of this Subpart.

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B) For 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), 25 percent of the total rated capacity, in MW, of the all the EGUs at such existing sources, other than any EGUs operating pursuant to Section 225.235 of this Subpart.

c) Compliance Requirements

1) Emission Control Requirements

The owner or operator of an EGU that is operating pursuant to this Section shall continue to maintain and operate the EGU to comply with the criteria for eligibility for operation under this Section, except during an evaluation of the current sorbent, alternative sorbents or other techniques to control mercury emissions, as provided by subsection (e) of this Section.

2) Monitoring and Recordkeeping Requirements

In addition to complying with all applicable reporting requirements in Sections 225.240 through 225.290 of this Subpart, the owner or operator of an EGU operating pursuant to this Section shall also:

- A) Through December 31, 2012, maintain records of the usage of activated carbon, the exhaust gas flow rate from the EGU, and the activated carbon feed rate, in pounds per million actual cubic feet of exhaust gas at the injection point, on a weekly average.
- B) Beginning January 1, 2013, monitor activated carbon feed rate to the EGU, flue gas temperature at the point of sorbent injection, and exhaust gas flow rate from the EGU, automatically recording this data and the activated carbon feed rate, in pounds per million actual cubic feet of exhaust gas at the injection point, on an hourly average.
- C) If a blend of bituminous and sub-bituminous coal is fired in the EGU, records of the amount of each type of coal burned and the required injection rate for injection of halogenated activated carbon, on a weekly basis.

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3) Notification and Reporting Requirements

In addition to complying with all applicable reporting requirements in Sections 225.240 through 225.290 of this Subpart, the owner or operator of an EGU operating pursuant to this Section shall also submit the following notifications and reports to the Agency:

- A) Written notification prior to the month in which any of the following events will occur: the EGU will no longer be eligible to operate under this Section due to a change in operation; the type of coal fired in the EGU will change; the mercury emission standard with which the owner or operator is attempting to comply for the EGU will change; or operation under this Section will be terminated.
- B) Quarterly reports for the recordkeeping and monitoring conducted pursuant to subsection (c)(2) of this Section.
- C) Annual reports detailing activities conducted for the EGU to further improve control of mercury emissions, including the measures taken during the past year and activities planned for the current year.

d) Applications to Operate under the Technology-Based Standard

1) Application Deadlines

- A) The owner or operator of an EGU that is seeking to operate the EGU under this Section shall submit an application to the Agency no later than three months prior to the date that compliance with Section 225.230 of this Subpart would otherwise have to be demonstrated. For example, the owner or operator of an EGU that is applying to operate the EGU pursuant to this Section on June 30, 2010, when compliance with applicable mercury emission standards must be first demonstrated, shall apply by March 31, 2010 to operate under this Section.
- B) Unless the Agency finds that the EGU is not eligible to operate under this Section or that the application for operation under this Section does not meet the requirements of subsection (d)(2) of this

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Section, the owner or operator of the EGU is authorized to operate the EGU under this Section beginning 60 days after receipt of the application by the Agency.

- C) The owner or operator of an EGU operating pursuant to this Section must reapply to operate pursuant to this Section:
 - i) If it operated pursuant to this Section during the period of June 2010 through December 2012 and it seeks to operate pursuant to this Section during the period from January 2013 through June 2015.
 - ii) If it is planning a physical change to or a change in the method of operation of the EGU, control equipment or practices for injection of activated carbon that is expected to reduce the level of control of mercury emissions.

2) Contents of Application

An application to operate pursuant to this Section shall be submitted as an application for a new or revised federally enforceable operating permit for the EGU and include the following:

- A) A formal request to operate pursuant to this Section showing that the EGU is eligible to operate pursuant to this Section and describing the reason for the request, the measures that have been taken for control of mercury emissions, and factors preventing more effective control of mercury emissions from the EGU.
- B) The applicable mercury emission standard in Section 225.230(a) with which the owner or operator of the EGU is attempting to comply and a summary of relevant mercury emission data for the EGU.
- C) If a unit-specific rate or rates for carbon injection are proposed pursuant to subsection (b)(2) of this Section, detailed information to support the proposed injection rates.
- D) An action plan describing the measures that will be taken while operating under this Section to improve control of mercury emissions. This plan shall address measures such as evaluation of

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alternative forms or sources of activated carbon, changes to the injection system, changes to operation of the unit that affect the effectiveness of mercury absorption and collection, changes to the particulate matter control device to improve performance and changes to other emission control devices. For each measure contained in the plan, the plan shall provide a detailed description of the specific actions that are planned, the reason that the measure is being pursued and the range of improvement in control of mercury that is expected, and the factors that affect the timing for carrying out the measure, with the current schedule for the measure.

- e) Evaluation of Alternative Control Techniques for Mercury Emissions
- 1) During an evaluation of the effectiveness of the current sorbent, alternative sorbent, or other technique to control mercury emissions, the owner or operator of an EGU operating under this Section need not comply with the eligibility criteria for operation under this Section as needed to carry out an evaluation of the practicality and effectiveness of such technique, as further provided below:
 - A) The owner or operator of the EGU shall conduct the evaluation in accordance with a formal evaluation program submitted to the Illinois EPA at least 30 days in advance.
 - B) The duration and scope of the evaluation shall not exceed the duration and scope reasonably needed to complete the desired evaluation of the alternative control technique, as initially addressed by the owner or owner in a support document submitted with the evaluation program.
 - C) Notwithstanding 35 Ill. Adm. Code 201.146(hhh), the owner or operator of the EGU shall obtain a construction permit for any new or modified air pollution control equipment to be constructed as part of the evaluation of the alternative control technique.
 - D) The owner or operator of the EGU shall submit a report to the Illinois EPA no later than 90 days after the conclusion of the evaluation describing the evaluation that was conducted and providing the results of the evaluation.

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- 2) If the evaluation of the alternative control technique shows less effective control of mercury emissions from the EGU than achieved with the prior control technique, the owner or operator of the EGU shall resume use of the prior control technique. If the evaluation of the alternative control technique shows comparable effectiveness, the owner or operator of the EGU may either continue to use the alternative control technique in an optimum manner or resume use of the prior control technique. If the evaluation of the alternative control technique shows more effective control of mercury emissions, the owner or operator of the EGU shall continue to use the alternative control technique in an optimum manner, if it continues to operate under this Section.

Section 225.238 Temporary Technology-Based Standard for New Sources with EGUs

a) General

- 1) At a source with EGUs that previously had not had any EGUs that commenced commercial operation before January 1, 2009, for an EGU that meets the eligibility criteria in subsection (b) of this Section, as an alternative to compliance with the mercury emission standards in Section 225.237 of this Subpart, the owner or operator of the EGU may temporarily comply with the requirements of this Section, through December 31, 2018, as further provided in subsections (c), (d), and (e) of this Section.
- 2) An EGU that is complying with the emission control requirements of this Subpart by operating under this Section may not be included in a compliance demonstration involving other EGUs at the source during the period that such standard is in effect.
- 3) The owner or operator of an EGU that is complying with this Subpart by means of this Section is not excused from applicable monitoring, recordkeeping, and reporting requirements in Sections 225.240 through 225.290 of this Subpart.

b) Eligibility

To be eligible to operate an EGU under this Section, the following criteria shall be met for the EGU:

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- 1) The EGU is subject to Best Available Control Technology (BACT) for emissions of sulfur dioxide, nitrogen oxides and particulate matter and is equipped and operated with the air pollution control equipment or systems specified below, as applicable to the category of EGU:
 - A) For coal-fired boilers, injection of halogenated activated carbon.
 - B) For an EGU firing fuel gas produced by coal gasification, processing of the raw fuel gas prior to combustion for removal of mercury with system a using activated carbon.
 - 2) For an EGU for which injection of halogenated activated carbon is required by subsection (b)(1) of this Section, the owner or operator of the EGU is injecting halogenated activated carbon in an optimum manner for control of mercury emissions, which shall include injection of Alstrom, Norit, Sorbent Technologies, or other halogenated activated carbon that the owner or operator of the EGU shows to have similar or better effectiveness for control of mercury emissions, at least at the following rates, unless other provisions for injection of halogenated activated carbon are established in a federally enforceable operating permit issued for the EGU, with an injection system designed for effective absorption of mercury. For this purpose, flue gas flow rate shall be determined for the point of sorbent injection, provided, however, that this flow rate may be assumed to be identical to the stack flow rate if the gas temperatures at the point of injection and the stack are normally within 100° F, or may otherwise be calculated from the stack flow rate, corrected for the difference in gas temperatures.
 - A) For an EGU firing subbituminous coal, 5.0 pounds per million actual cubic feet.
 - B) For an EGU firing bituminous coal, 10.0 pounds per million actual cubic feet.
 - C) For an EGU firing a blend of subbituminous and bituminous coal, a rate that is the weighted average of the above rates, based on the blend of coal being fired.
- c) Compliance Requirements
- 1) Emission Control Requirements

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The owner or operator of an EGU that is operating pursuant to this Section shall continue to maintain and operate the EGU to comply with the criteria for eligibility for operation under this Section, except during an evaluation of the current sorbent, alternative sorbents or other techniques to control mercury emissions, as provided by subsection (e) of this Section.

2) Monitoring and Recordkeeping Requirements

In addition to complying with all applicable reporting requirements in Sections 225.240 through 225.290 of this Subpart, the owner or operator of a new EGU operating pursuant to this Section shall also:

- A) Monitor activated carbon feed rate to the EGU, flue gas temperature at the point of sorbent injection, and exhaust gas flow rate from the EGU, automatically recording this data and the activated carbon feed rate, in pounds per million actual cubic feet of exhaust gas at the injection point, on an hourly average.
- B) If a blend of bituminous and sub-bituminous coal is fired in the EGU, records of the amount of each type of coal burned and the required injection rate for injection of halogenated activated carbon, on a weekly basis.

3) Notification and Reporting Requirements

In addition to complying with all applicable reporting requirements in Sections 225.240 through 225.290 of this Subpart, the owner or operator of an EGU operating pursuant to this Section shall also submit the following notifications and reports to the Agency:

- A) Written notification prior to the month in which any of the following events will occur: the EGU will no longer be eligible to operate under this Section due to a change in operation; the type of coal fired in the EGU will change; the mercury emission standard with which the owner or operator is attempting to comply for the EGU will change; or operation under this Section will be terminated.
- B) Quarterly reports for the recordkeeping and monitoring conducted pursuant to subsection (c)(2) of this Section.

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- C) Annual reports detailing activities conducted for the EGU to further improve control of mercury emissions, including the measures taken during the past year and activities planned for the current year.
- d) Applications to Operate under the Technology-Based Standard
 - 1) Application Deadlines
 - A) The owner or operator of an EGU that is seeking to operate the EGU under this Section shall submit an application to the Agency no later than three months prior to the date that compliance with Section 225.237 of this Subpart would otherwise have to be demonstrated.
 - B) Unless the Agency finds that the EGU is not eligible to operate under this Section or that the application for operation under this Section does not meet the requirements of subsection (d)(2) of this Section, the owner or operator of the EGU is authorized to operate the EGU under this Section beginning 60 days after receipt of the application by the Agency.
 - C) The owner or operator of an EGU operating pursuant to this Section must reapply to operate pursuant to this Section if it is planning a physical change to or a change in the method of operation of the EGU, control equipment or practices for injection of activated carbon that is expected to reduce the level of control of mercury emissions.
 - 2) Contents of Application

An application to operate pursuant to this Section shall be submitted as an application for a new or revised federally enforceable operating permit for the new EGU and include the following:

 - A) A formal request to operate pursuant to this Section showing that the EGU is eligible to operate pursuant to this Section and describing the reason for the request, the measures that have been taken for control of mercury emissions, and factors preventing more effective control of mercury emissions from the EGU.

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- B) The applicable mercury emission standard in Section 225.237 with which the owner or operator of the EGU is attempting to comply and a summary of relevant mercury emission data for the EGU.
 - C) If a unit-specific rate or rates for carbon injection are proposed pursuant to subsection (b)(2) of this Section, detailed information to support the proposed injection rates.
 - D) An action plan describing the measures that will be taken while operating under this Section to improve control of mercury emissions. This plan shall address measures such as evaluation of alternative forms or sources of activated carbon, changes to the injection system, changes to operation of the unit that affect the effectiveness of mercury absorption and collection, and changes to other emission control devices. For each measure contained in the plan, the plan shall provide a detailed description of the specific actions that are planned, the reason that the measure is being pursued and the range of improvement in control of mercury that is expected, and the factors that affect the timing for carrying out the measure, with the current schedule for the measure.
- e) Evaluation of Alternative Control Techniques for Mercury Emissions
- 1) During an evaluation of the effectiveness of the current sorbent, alternative sorbent, or other technique to control mercury emissions, the owner or operator of an EGU operating under this Section need not comply with the eligibility criteria for operation under this Section as needed to carry out an evaluation of the practicality and effectiveness of such technique, as further provided below:
 - A) The owner or operator of the EGU shall conduct the evaluation in accordance with a formal evaluation program submitted to the Illinois EPA at least 30 days in advance.
 - B) The duration and scope of the evaluation shall not exceed the duration and scope reasonably needed to complete the desired evaluation of the alternative control technique, as initially addressed by the owner or owner in a support document submitted with the evaluation program.

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- C) Notwithstanding 35 Ill. Adm. Code 201.146(hhh), the owner or operator of the EGU shall obtain a construction permit for any new or modified air pollution control equipment to be constructed as part of the evaluation of the alternative control technique.
 - D) The owner or operator of the EGU shall submit a report to the Illinois EPA no later than 90 days after the conclusion of the evaluation describing the evaluation that was conducted and providing the results of the evaluation.
- 2) If the evaluation of the alternative control technique shows less effective control of mercury emissions from the EGU than achieved with the prior control technique, the owner or operator of the EGU shall resume use of the prior control technique. If the evaluation of the alternative control technique shows comparable effectiveness, the owner or operator of the EGU may either continue to use the alternative control technique in an optimum manner or resume use of the prior control technique. If the evaluation of the alternative control technique shows more effective control of mercury emissions, the owner or operator of the EGU shall continue to use the alternative control technique in an optimum manner, if it continues to operate under this Section.