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POLLUTION CONTROL BOARD

MAY 17 2006

NOTICE OF PROPOSED RULES

STATE OF ILLINOIS
Pollution Control Board

- 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: 415 ILCS 5/27 (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 USC Section 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. 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

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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.

As is explained in the Notice of Withdrawal published in this issue of the *Illinois Register*, this is the second first-notice publication of this proposed rule. The Board withdrew its original first notice publication in response to a preliminary injunction entered by the Sangamon County Circuit Court on May 1, 2006 in "Dynergy Midwest Generation, Inc., Kincaid Generation, L.L.C., and Midwest Generation, L.L.C. v. PCB and IEPA", No 2006-CH-213. The Sangamon County Circuit Court enjoined the Board from proceeding pursuant to the hearing and rulemaking schedule required by Section 28.5 (fast track Clean Air Act rulemaking procedures) of the Act [415 ILCS 5/28.5 (2004)]. Because the Circuit Court's action concerns the statutory authority that the Board used to propose this rulemaking, the Board is, on its own motion, proposing a new rule in this same issue of the *Illinois Register* that is in substance identical to the proposal that is being withdrawn with this notice. The only change being made in the new proposal is that the Board is citing only its general rulemaking authority under Section 27 of the Environmental Protection Act (Act) [415 ILCS 5/27 (2004)].

- 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.

Anderson, H.A., J.F. Amrhein, P. Shubat, and J. Hesse. Protocol for a uniform Great

- 7) Will this proposed rule replace any emergency rule currently in effect? No
- 8) Does this rule contain an automatic repeal date? No

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- 9) Does this proposed rule contain incorporations by reference? Yes
- 10) Are there any other proposed rules pending on this Part? No
- 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: 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.

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.
- C) Types of Professional skills necessary for compliance: No professional skills

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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 begins on the next page:

1ST NOTICE VERSION

JCAR350225-0609281r01

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

RECEIVED
CLERK'S OFFICE
MAY 17 2006
STATE OF ILLINOIS
Pollution Control Board

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
225.237	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

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].

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

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SUBPART A: GENERAL PROVISIONS

47

48 **Section 225.100 Severability**

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

52

53 **Section 225.120 Abbreviations and Acronyms**

54

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

58

Act	Environmental Protection Act [415 ILCS 5]
Btu	British thermal unit
CAA	Clean Air Act (42 USC 7401 et seq.)
CAAPP	Clean Air Act Permit Program
CO ₂	carbon dioxide
EGU	electric generating unit
GWh	gigawatt hour
hr	hour
lb	pound
MW	megawatt
MWe	megawatt electrical
MWh	megawatt hour
NO _x	nitrogen oxides
O ₂	oxygen
RATA	relative accuracy test audit
SO ₂	sulfur dioxide
USEPA	United States Environmental Protection Agency

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60 **Section 225.130 Definitions**

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

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"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.

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"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

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.

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

115
116 "Combustion turbine" means:

117
118 An enclosed device comprising a compressor, a combustor, and a turbine
119 and in which the flue gas resulting from the combustion of fuel in the
120 combustor passes through the turbine, rotating the turbine; and

121
122 If the enclosed device under the above paragraph of this definition is
123 combined cycle, any associated heat recovery steam generator and steam
124 turbine.

125
126 "Commence commercial operation" means, with regard to Subpart B of this Part,
127 with regard to an Electric Generating Unit that serves a generator, to have begun
128 to produce steam, gas, or other heated medium used to generate electricity for sale
129 or use, including test generation. Such date shall remain the unit's date of
130 commencement of operation even if the Electric Generating Unit is subsequently
131 modified, reconstructed or repowered.

132
133 "Designated representative" means, with regard to Subpart B of this Part, the
134 same as defined in 40 CFR 60.4102.

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

138
139 "Gross electrical output" means the total electrical output from an Electric
140 Generating Unit before making any deductions for energy output used in any way
141 related to the production of energy. For an Electric Generating Unit generating
142 only electricity, the gross electrical output is the output from the turbine/generator
143 set.

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

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148 "Nameplate capacity" means, starting from the initial installation of a generator,
149 the maximum electrical generating output (in MWe) that the generator is capable
150 of producing on a steady-state basis and during continuous operation (when not
151 restricted by seasonal or other deratings) as specified by the manufacturer of the
152 generator or, starting from the completion of any subsequent physical change in
153 the generator resulting in an increase in the maximum electrical generating output
154 (in MWe) that the generator is capable of producing on a steady-state basis and
155 during continuous operation (when not restricted by seasonal or other deratings),

156 such increased maximum amount as specified by the person conducting the
157 physical change.

158
159 "Output-based emission standard" means, with regard to Subpart B of this Part, a
160 maximum allowable rate of emissions of mercury per unit of gross electrical
161 output from an Electric Generating Unit.

162
163 "Repowered" means, with regard to an EGU, replacement of a coal-fired boiler
164 with one of the following coal-fired technologies at the same source as the coal-
165 fired boiler:

166
167 Atmospheric or pressurized fluidized bed combustion;

168
169 Integrated gasification combined cycle;

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171 Magnetohydrodynamics;

172
173 Direct and indirect coal-fired turbines;

174
175 Integrated gasification fuel cells; or

176
177 As determined by the USEPA in consultation with the United States
178 Department of Energy, a derivative of one or more of the technologies
179 under this definition and any other coal-fired technology capable of
180 controlling multiple combustion emissions simultaneously with improved
181 boiler or generation efficiency and with significantly greater waste
182 reduction relative to the performance of technology in widespread
183 commercial use as of January 1, 2005.

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185 "Rolling 12-month basis" means, with regard to Subpart B of this Part, a
186 determination made on a monthly basis from the relevant data for a particular
187 calendar month and the preceding 11 calendar months (total of 12 months of
188 data), with two exceptions. For determinations involving one EGU, calendar
189 months in which the EGU does not operate (zero EGU operating hours) shall not
190 be included in the determination, and shall be replaced by a preceding month or
191 months in which the EGU does operate, so that the determination is still based on
192 12 months of data. For determinations involving two or more EGUs, calendar
193 months in which none of the EGUs covered by the determination operates (zero
194 EGU operating hours) shall not be included in the determination, and shall be
195 replaced by preceding months in which at least one of the EGUs covered by the
196 determination does operate, so that the determination is still based on 12 months
197 of data.

198

199 **Section 225.140 Incorporations by Reference**

200

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

203

204 a) 40 CFR 60, 60.17, 60.45a, 60.49a(k)(1), 60.49a(p), 60.50a(h), and 60.4170
 205 through 60.4176 (2005).

206

207 b) 40 CFR 75 (2005).

208

209 c) ASTM. American Society for Testing and Materials, 100 Barr Harbor Drive, P.O.
 210 Box C700, West Conshohocken PA 19428-2959, (610) 832-9585:

211

212 1) ASTM D388-77, 90, 91, 95, 98a, or 99, Classification of Coals by Rank
 213 (Reapproved 2004).

214

215 2) ASTM D3173-03, Standard Test Method for Moisture in the Analysis
 216 Sample of Coal and Coke (Approved April 10, 2003).

217

218 3) ASTM D3684-01, Standard Test Method for Total Mercury in Coal by the
 219 Oxygen Bomb Combustion/Atomic Absorption Method (Approved
 220 October 10, 2001).

221

222 4) ASTM D5865-04, Standard Test Method for Gross Calorific Value of
 223 Coal and Coke (Approved April 1, 2004).

224

225 5) ASTM D6414-01, Standard Test Method for Total Mercury in Coal and
 226 Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold
 227 Vapor Atomic Absorption (Approved October 10, 2001).

228

229 6) ASTM D6784-02, Standard Test Method for Elemental, Oxidized,
 230 Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired
 231 Stationary Sources (Ontario Hydro Method) (Approved April 10, 2002).

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

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236 **Section 225.200 Purpose**

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

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241 **Section 225.202 Measurement Methods**

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Measurement of mercury shall be according to the following:

- a) Continuous emission monitoring pursuant to 40 CFR 75 (2005).
- 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).

Section 225.205 Applicability

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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.

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Section 225.210 Compliance Requirements

- 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.

 - 3) Copies of all documents used to complete a permit application and any other submission under this Subpart.

- e) **Liability**

- 328 1) The owner or operator of each source with one or more EGUs shall meet
329 the requirements of this Subpart.
- 330
- 331 2) Any provision of this Subpart that applies to a source shall also apply to
332 the owner and operator of such source and to the owner and operator of
333 each EGU at the source.
- 334
- 335 3) Any provision of this Subpart that applies to an EGU shall also apply to
336 the owner and operator of such EGU.
- 337
- 338 f) Effect on Other Authorities. No provision of this Subpart shall be construed as
339 exempting or excluding the owner and operator of a source or EGU from
340 compliance with any other provision of an approved State Implementation Plan, a
341 permit, the Act, or the CAA.
- 342

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

- 344
- 345 a) Application Requirements
- 346
- 347 1) Each source with one or more EGUs subject to the requirements of this
348 Subpart is required to submit a CAAPP permit application that addresses
349 all applicable requirements of this Subpart, applicable to each EGU at the
350 source.
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- 352 2) For any EGU that commenced commercial operation:
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- 354 A) on or before December 31, 2008, the owner or operator of that
355 EGU must submit an initial permit application or application for
356 CAAPP permit modification that meets the requirements of this
357 Section by December 31, 2008.
- 358
- 359 B) after December 31, 2008, the owner or operator of any such EGU
360 must submit an initial CAAPP permit application or application for
361 CAAPP modification that meets the requirements of this Section
362 not later than 180 days before initial startup of the EGU, unless the
363 construction permit issued for the EGU addresses the requirements
364 of this Subpart.
- 365
- 366 b) Contents of Permit Applications
- 367 In addition to other information required for a complete application for CAAPP
368 permit or CAAPP permit modification, the application shall include the following
369 information:
- 370

- 371 1) The ORIS (Office of Regulatory Information Systems) or facility code
372 assigned to the source by the Energy Information Administration, if
373 applicable.
- 374
- 375 2) Identification of each EGU at the source.
- 376
- 377 3) The intended approach to the monitoring requirements of Sections
378 225.240 through 225.290 of this Subpart.
- 379
- 380 4) The intended approach to the mercury emission reduction requirements of
381 Section 225.230 or 225.237 of this Subpart, as applicable.
- 382

383 c) Permit Contents

- 384
- 385 1) Each CAAPP permit issued by the Agency for a source with one or more
386 EGUs subject to the requirements of this Subpart shall contain federally
387 enforceable conditions addressing all applicable requirements of this
388 Subpart, which conditions shall be a complete and segregable portion of
389 the source's entire CAAPP permit.
- 390
- 391 2) In addition to conditions related to the applicable requirements of this
392 Subpart, each such CAAPP permit shall also contain the information
393 specified under subsection (b) of this Section.
- 394

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

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397 a) Emission Standards

- 398
- 399 1) Beginning July 1, 2009, the owner or operator of a source with one
400 or more EGUs subject to this Subpart that commenced commercial
401 operation on or before December 31, 2008 shall comply with one of the
402 following standards for each EGU on a rolling 12-month basis:
 - 403
 - 404 A) An emission standard of 0.0080 lb mercury/GWh gross electrical
405 output; or
 - 406
 - 407 B) A minimum 90-percent reduction of input mercury.
 - 408
- 409 2) For an EGU complying with subsection (a)(1)(A) of this Section, the
410 actual mercury emission rate of the EGU for each 12-month rolling period,
411 as monitored in accordance with this Subpart and calculated as follows,
412 shall not exceed the applicable emission standard:
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$$ER = \sum_{i=1}^{12} E_i \div \sum_{i=1}^{12} O_i$$

Where:

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

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

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.

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- b) Alternative Emission Standards for Single EGUs
 - 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.

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- 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:

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

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

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

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.

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- 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.

458 c) If two or more EGUs are served by common stack(s) and the owner or operator
 459 conducts monitoring for mercury emissions in the common stack(s), as provided
 460 for by 40 CFR 75, subpart I, such that the mercury emissions of each EGU are not
 461 determined separately, compliance of the EGUs with the applicable emission
 462 standards of this Subpart shall be determined as if the EGUs were a single EGU.

463
 464 d) Alternative Emission Standards for Multiple EGUs

465
 466 1) As an alternative to compliance with the emission standards of subsection
 467 (a) of this Section, the owner or operator of a source with an EGU may
 468 comply with the emission standards of this Subpart by demonstrating that
 469 the actual emissions of mercury from all EGUs at the source are less than
 470 the allowable emissions of mercury from all EGUs at the source on a
 471 rolling 12-month basis.

472
 473 2) For this purpose, for each rolling 12-month period, the actual emissions of
 474 mercury from all the EGUs at the source, as monitored in accordance with
 475 this Subpart, must not exceed the sum of the allowable emissions of
 476 mercury from all the EGUs at the source, as further provided by the
 477 following formulas:

478
 479
$$E_s \leq A_s$$

480
 481
$$E_s = \sum_{i=1}^n E_i$$

482
 483
$$A_s = \sum_{i=1}^n A_i$$

484
 485 Where:

- 486
- 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.

487
 488 3) If an owner or operator of a source with two or more EGUs that is relying
 489 on this subsection (d) to demonstrate compliance fails to meet the
 490 requirements of this subsection (d) in a given 12-month rolling period, all

491 EGUs at such source covered by the compliance demonstration are
 492 considered out of compliance with the applicable emission standards of
 493 this Subpart for the entire last month of that period.
 494

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

- 496
- 497 a) Through December 31, 2013, as an alternative to compliance with the emission
 498 standards of Section 225.230(a) of this Subpart, the owner or operator of an EGU
 499 may comply with the emission standards of this Subpart by means of an
 500 Averaging Demonstration (Demonstration) that shows that the actual emissions of
 501 mercury from the EGU and other EGUs at the source and other EGUs at other
 502 sources covered by the Demonstration are less than the allowable emissions of
 503 mercury from all EGUs covered by the Demonstration on a rolling 12-month
 504 basis.
 - 505
 - 506 b) The EGUs at each source covered by a Demonstration must also comply with one
 507 of the following emission standards on a source-wide basis for the period covered
 508 by the Demonstration:
 509
 - 510 1) An emission standard of 0.020 lb mercury/GWh gross electrical output; or
 - 511
 - 512 2) A minimum 75 percent reduction of input mercury.
 - 513
 - 514 c) For the purpose of this Section, compliance shall be determined using the
 515 equations in Section 225.230(a)(2), (a)(3), or (d)(2) of this Subpart, as applicable,
 516 addressing all EGUs at the sources covered by the Demonstration, rather than
 517 only EGUs at one source.
 - 518
 - 519 d) Limitations on Demonstrations
 520
 - 521 1) The owners or operators of more than one existing source with EGUs can
 522 only participate in Demonstrations that include other existing sources that
 523 they own or operate.
 - 524
 - 525 2) Single Existing Source Demonstrations
 526
 - 527 A) The owner or operator of only a single existing source with EGUs
 528 (i.e., City, Water, Light & Power, City of Springfield, ID
 529 167120AAO; Electric Energy, Inc., ID 127855AAC; Kincaid
 530 Generating Station, ID 021814AAB; and Southern Illinois Power
 531 Cooperative/Marion Generating Station, ID 199856AAC) can only
 532 participate in Demonstrations with other such owners or operators
 533 of a single existing source of EGUs.

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B) Participation in Demonstrations under this Section by the owner or operator of only a single existing source with 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 follows:

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 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 shut down of the unit.

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- 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, 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,

619 for up to one year, i.e., permanent shut down of the EGU to occur
 620 by no later than December 31, 2011.

621
 622 B) If the owner or operator of the EGU is constructing a new EGU or
 623 other generating units to specifically replace the existing EGU, for
 624 up to 18 months, i.e., permanent shutdown of the EGU to occur by
 625 no later than June 30, 2013; provided, however, that after
 626 December 31, 2012, the existing EGU shall only operate as a back-
 627 up unit to address periods when the new generating units are not in
 628 service.

629
 630 b) Notwithstanding Sections 225.230 and 225.232 of this Subpart, any EGU that is
 631 not required to comply with Section 225.230 of this Subpart pursuant to this
 632 Section shall not be included when determining whether any other EGUs at the
 633 source or other sources are in compliance with Section 225.230 of this Subpart.

634
 635 c) If an EGU, for which the owner or operator of the source has relied upon this
 636 Section in lieu of complying with Section 225.230(a) of this Subpart, is not
 637 permanently shut down as required by this Section, the EGU shall be considered
 638 to be a new EGU subject to the emission standards in Section 225.237(a) of this
 639 Subpart beginning in the month after the EGU was required to be permanently
 640 shut down, in addition to any other penalties that may be imposed for failure to
 641 permanently shut down the EGU in accordance with this Section.

642
 643 **Section 225.237 Emission Standards for New Sources with EGUs**

644
 645 a) Standards

646
 647 1) The owner or operator of a source with one or more EGUs, but that
 648 previously had not had any EGUs that commenced commercial operation
 649 before January 1, 2009, shall comply with one of the following emission
 650 standards for each EGU on a rolling 12-month basis:

651
 652 A) An emission standard of 0.0080 lb mercury/GWh gross electrical
 653 output; or

654
 655 B) A minimum 90 percent reduction of input mercury.

656
 657 2) For this purpose, compliance may be demonstrated using the equations in
 658 Section 225.230(a)(2), (a)(3), or (b)(2) of this Subpart.

659
 660 b) The initial 12-month rolling period for which compliance with the emission
 661 standards of subsection (a)(1) of this Section must be demonstrated for a new

662 EGU shall commence on the date that the initial performance test for the mercury
 663 emission standard under 40 CFR 60.45a also commences. The continuous
 664 emission monitoring systems required by this Subpart for mercury emissions from
 665 the EGU must be certified prior to this date. Thereafter, compliance shall be
 666 demonstrated on a rolling 12-month basis in terms of calendar months.
 667

668 **Section 225.240 General Monitoring and Reporting Requirements**
 669

670 The owner or operator of an EGU shall comply with the monitoring, recordkeeping, and
 671 reporting requirements as provided in this Section, Sections 225.250 through 225.290 of this
 672 Subpart, and subpart I of 40 CFR 75. If the EGU utilizes a common stack with units that are not
 673 EGUs and the owner or operator of the EGU does not conduct emissions monitoring in the duct
 674 to the common stack from each EGU, the owner or operator of the EGU shall conduct emissions
 675 monitoring in accordance with 40 CFR 75.82(b)(2) and this Section, including monitoring in the
 676 duct to the common stack from each unit that is not an EGU, unless the owner or operator of the
 677 EGU counts the combined emissions measured at the common stack as the mass emissions of
 678 mercury for the EGUs for recordkeeping and compliance purposes.
 679

680 a) Requirements for installation, certification, and data accounting. The owner or
 681 operator of each EGU shall:

- 682 1) Install all monitoring systems required under this Section and Sections
 683 225.250 through 225.290 of this Subpart for monitoring mercury mass
 684 emissions (including all systems required to monitor mercury
 685 concentration, stack gas moisture content, stack gas flow rate, and CO₂ or
 686 O₂ concentration, as applicable, in accordance with 40 CFR 75.81 and
 687 75.82).
 688
- 689 2) Successfully complete all certification tests required under Section
 690 225.250 and meet all other requirements of this Section, Sections 225.250
 691 through 225.290 of this Subpart, and subpart I of 40 CFR 75 applicable to
 692 the monitoring systems required under subsection (a)(1) of this Section.
 693
- 694 3) Record, report, and quality-assure the data from the monitoring systems
 695 required under subsection (a)(1) of this Section.
 696
- 697 4) If the owner or operator elects to use the low mass emissions excepted
 698 monitoring methodology for an EGU that emits no more than 464 ounces
 699 (29 pounds) of mercury per year pursuant to 40 CFR 75.81(b), also
 700 perform emissions testing in accordance with 40 CFR 75.81(c) to
 701 demonstrate that the EGU is eligible to use this excepted emissions
 702 monitoring methodology, as well as comply with all other applicable
 703 requirements of 40 CFR 75.81(b) through (f), and submit a copy of any
 704

705 information required to be submitted to the USEPA under these provisions
706 to the Illinois EPA. The initial emissions testing to demonstrate eligibility
707 of an EGU for the low mass emissions excepted methodology shall be
708 conducted by the following dates:

- 709
- 710 A) If the EGU has commenced commercial operation before July 1,
711 2008, at least by January 1, 2009, or 45 days prior to relying on the
712 low mass emissions excepted methodology, whichever date is
713 later.
- 714
- 715 B) If the EGU has commenced commercial operation on or after July
716 1, 2008, at least 45 days prior to the applicable date specified under
717 subsection (b)(2) of this Section or 45 days prior to relying on the
718 low mass emissions excepted methodology, whichever date is
719 later.
- 720

721 b) Emissions Monitoring Deadlines. The owner or operator shall meet the emissions
722 monitoring system certification and other emissions monitoring requirements of
723 subsections (a)(1) and (a)(2) of this Section on or before the following dates. The
724 owner or operator shall record, report, and quality-assure the data from the
725 emissions monitoring systems required under subsection (a)(1) of this Section on
726 and after the following dates:

- 727
- 728 1) For the owner or operator of an EGU that commences commercial
729 operation before July 1, 2008, by January 1, 2009.
- 730
- 731 2) For the owner or operator of an EGU that commences commercial
732 operation on or after July 1, 2008, by 90 unit operating days or 180
733 calendar days, whichever occurs first, after the date on which the EGU
734 commences commercial operation.
- 735
- 736 3) For the owner or operator of an EGU for which construction of a new
737 stack or flue or installation of add-on mercury emission controls, a flue
738 gas desulfurization system, a selective catalytic reduction system, a fabric
739 filter, or a compact hybrid particulate collector system is completed after
740 the applicable deadline under subsection (b)(1) or (2) of this Section, by
741 90 unit operating days or 180 calendar days, whichever occurs first, after
742 the date on which emissions first exit to the atmosphere through the new
743 stack or flue, add-on mercury emissions controls, flue gas desulfurization
744 system, selective catalytic reduction system, fabric filter, or compact
745 hybrid particulate collector system.
- 746

747 c) Reporting Data

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- 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, 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 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 the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or

791 maintenance is performed in accordance with the applicable provisions of
 792 this Section, Sections 225.250 through 225.290 of this Subpart, and
 793 subpart I of 40 CFR 75.

794
 795 4) No owner or operator of an EGU shall retire or permanently discontinue
 796 use of the continuous emission monitoring system or any component
 797 thereof, or any other approved monitoring system under this Subpart,
 798 except under any one of the following circumstances:

799
 800 A) The owner or operator is monitoring emissions from the EGU with
 801 another certified monitoring system that has been approved, in
 802 accordance with the applicable provisions of this Section, Sections
 803 225.250 through 225.290 of this Subpart, and subpart I of 40 CFR
 804 75, by the Agency for use at that EGU and that provides emission
 805 data for the same pollutant or parameter as the retired or
 806 discontinued monitoring system; or

807
 808 B) The owner or operator or designated representative submits
 809 notification of the date of certification testing of a replacement
 810 monitoring system for the retired or discontinued monitoring
 811 system in accordance with Section 225.250(a)(3)(A) of this
 812 Subpart.

813
 814 e) Long-term Cold Storage
 815 The owner or operator of an EGU that is in long-term cold storage is subject to
 816 the applicable provisions of 40 CFR 75 for monitoring, recordkeeping, and
 817 reporting for units in long-term cold storage.

818
 819 **Section 225.250 Initial Certification and Recertification Procedures for Emissions**
 820 **Monitoring**

821
 822 a) The owner or operator of an EGU shall comply with the following initial
 823 certification and recertification procedures for a continuous emissions monitoring
 824 system (i.e., a continuous emission monitoring system or an excepted monitoring
 825 system (sorbent trap monitoring system) under 40 CFR 75.15) required by Section
 826 225.240(a)(1). The owner or operator of an EGU that qualifies for, and for which
 827 the owner or operator elects to use, the low mass emissions excepted
 828 methodology under 40 CFR 75.81(b) shall comply with the procedures in
 829 subsection (c) of this Section.

830
 831 1) Requirements for Initial Certification. The owner or operator of an EGU
 832 shall ensure that, for each continuous emissions monitoring system
 833 required by Section 225.240(a)(1) of this Subpart (including the automated

834 data acquisition and handling system), the owner or operator successfully
 835 completes all of the initial certification testing required under 40 CFR
 836 75.80(d) by the applicable deadline in Section 225.240(b) of this Subpart.
 837 In addition, whenever the owner or operator of an EGU installs a
 838 monitoring system to meet the requirements of this Subpart in a location
 839 where no such monitoring system was previously installed, the owner or
 840 operator must successfully complete the initial certification requirements
 841 of 40 CFR 75.80(d).
 842

843 2) Requirements for Recertification. Whenever the owner or operator of an
 844 EGU makes a replacement, modification, or change in any certified
 845 continuous emission monitoring system, or an excepted monitoring system
 846 (sorbent trap monitoring system) under 40 CFR 75.15, and required by
 847 Section 225.240(a)(1) of this Subpart, that may significantly affect the
 848 ability of the system to accurately measure or record mercury mass
 849 emissions or heat input rate or to meet the quality-assurance and quality-
 850 control requirements of 40 CFR 75.21 or appendix B to 40 CFR 75, the
 851 owner or operator of an EGU shall recertify the monitoring system in
 852 accordance with 40 CFR 75.20(b). Furthermore, whenever the owner or
 853 operator of an EGU makes a replacement, modification, or change to the
 854 flue gas handling system or the EGU's operation that may significantly
 855 change the stack flow or concentration profile, the owner or operator shall
 856 recertify each continuous emission monitoring system, and each excepted
 857 monitoring system (sorbent trap monitoring system) under 40 CFR 75.15,
 858 whose accuracy is potentially affected by the change, all in accordance
 859 with 40 CFR 75.20(b). Examples of changes to a continuous emission
 860 monitoring system that require recertification include replacement of the
 861 analyzer, complete replacement of an existing continuous emission
 862 monitoring system, or change in location or orientation of the sampling
 863 probe or site.
 864

865 3) Approval Process for Initial Certification and Recertification. Subsections
 866 (a)(3)(A) through (D) of this Section apply to both initial certification and
 867 recertification of a continuous monitoring system required by Section
 868 225.240(a)(1) of this Subpart. For recertifications, replace the words
 869 "certification" and "initial certification" with the word "recertification",
 870 replace the word "certified" with the word "recertified", and follow the
 871 procedures in 40 CFR 75.20(b)(5) in lieu of the procedures in subsection
 872 (a)(3)(E) of this Section.
 873

874 A) Notification of Certification. The owner or operator shall submit
 875 to the Agency, USEPA Region 5, and the Administrator of the

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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 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 notice of disapproval within 120 days after 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 after 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 the 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR 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 75, then the Agency will issue a written notice of approval of the certification application within 120 days after 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

919 information required to complete the certification
920 application. If the owner or operator does not comply with
921 the notice of incompleteness by the specified date, then the
922 Agency may issue a notice of disapproval under subsection
923 (a)(3)(D)(iii) of this Section. The 120-day review period
924 shall not begin before receipt of a complete certification
925 application.

926
927 iii) Disapproval Notice. If the certification application shows
928 that any monitoring system does not meet the performance
929 requirements of 40 CFR 75 or if the certification
930 application is incomplete and the requirement for
931 disapproval under subsection (a)(3)(D)(ii) of this Section is
932 met, then the Agency will issue a written notice of
933 disapproval of the certification application. Upon issuance
934 of such notice of disapproval, the provisional certification
935 is invalidated by the Agency and the data measured and
936 recorded by each uncertified monitoring system shall not be
937 considered valid quality-assured data beginning with the
938 date and hour of provisional certification (as defined under
939 40 CFR 75.20(a)(3)). The owner or operator shall follow
940 the procedures for loss of certification in subsection
941 (a)(3)(E) of this Section for each monitoring system that is
942 disapproved for initial certification.

943
944 iv) Audit Decertification. The Agency may issue a notice of
945 disapproval of the certification status of a monitor in
946 accordance with Section 225.260(b) of this Subpart.

947
948 E) Procedures for Loss of Certification. If the Agency issues a notice
949 of disapproval of a certification application under subsection
950 (a)(3)(D)(iii) of this Section or a notice of disapproval of
951 certification status under subsection (a)(3)(D)(iv) of this Section,
952 then:

953
954 i) The owner or operator shall substitute the following values,
955 for each disapproved monitoring system, for each hour of
956 EGU operation during the period of invalid data specified
957 under 40 CFR 75.20(a)(4)(iii) or 75.21(e) and continuing
958 until the applicable date and hour specified under 40 CFR
959 75.20(a)(5)(i). For a disapproved mercury pollutant
960 concentration monitor and disapproved flow monitor,
961 respectively, the maximum potential concentration of

962 mercury and the maximum potential flow rate, as defined in
 963 Sections 2.1.7.1 and 2.1.4.1 of appendix A to 40 CFR 75.
 964 For a disapproved moisture monitoring system and
 965 disapproved diluent gas monitoring system, respectively,
 966 the minimum potential moisture percentage and either the
 967 maximum potential CO₂ concentration or the minimum
 968 potential O₂ concentration (as applicable), as defined in
 969 Sections 2.1.5, 2.1.3.1, and 2.1.3.2 of appendix A to 40
 970 CFR 75. For a disapproved excepted monitoring system
 971 (sorber trap monitoring system) under 40 CFR 75.15 and
 972 disapproved flow monitor, respectively, the maximum
 973 potential concentration of mercury and maximum potential
 974 flow rate, as defined in Sections 2.1.7.1 and 2.1.4.1 of
 975 appendix A to 40 CFR 75.

976
 977 ii) The owner or operator shall submit a notification of
 978 certification retest dates and a new certification application
 979 in accordance with subsections (a)(3)(A) and (B) of this
 980 Section.

981
 982 iii) The owner or operator shall repeat all certification tests or
 983 other requirements that were failed by the monitoring
 984 system, as indicated in the Agency's notice of disapproval,
 985 no later than 30 unit operating days after the date of
 986 issuance of the notice of disapproval.

987
 988 b) Exemption

989
 990 1) If an emissions monitoring system has been previously certified in
 991 accordance with 40 CFR 75 and the applicable quality assurance and
 992 quality control requirements of 40 CFR 75.21 and appendix B to 40 CFR
 993 75 are fully met, the monitoring system shall be exempt from the initial
 994 certification requirements of this Section.

995
 996 2) The recertification provisions of this Section shall apply to an emissions
 997 monitoring system required by Section 225.240(a)(1) of this Subpart
 998 exempt from initial certification requirements under subsection (a)(1) of
 999 this Section.

1000
 1001 c) Initial certification and recertification procedures for EGUs using the mercury low
 1002 mass emissions excepted methodology under 40 CFR 75.81(b). The owner or
 1003 operator of an EGU qualified to use the mercury low mass emissions excepted

1004 methodology under 40 CFR 75.81(b) shall meet the applicable certification and
1005 recertification requirements in 40 CFR 75.81(c) through (f).

1006
1007 d) Certification Applications. The owner or operator of an EGU shall submit an
1008 application to the Agency within 45 days after completing all initial certification
1009 or recertification tests required under this Section, including the information
1010 required under 40 CFR 75.63.

1011

1012 **Section 225.260 Out of Control Periods for Emission Monitors**

1013

1014 a) Whenever any emissions monitoring system fails to meet the quality-assurance
1015 and quality-control requirements or data validation requirements of 40 CFR 75,
1016 data shall be substituted using the applicable missing data procedures in subparts
1017 D and I of 40 CFR 75.

1018

1019 b) Audit Decertification. Whenever both an audit of an emissions monitoring
1020 system and a review of the initial certification or recertification application reveal
1021 that any emissions monitoring system should not have been certified or recertified
1022 because it did not meet a particular performance specification or other
1023 requirement under Section 225.250 of this Subpart or the applicable provisions of
1024 40 CFR 75, both at the time of the initial certification or recertification application
1025 submission and at the time of the audit, the Agency will issue a notice of
1026 disapproval of the certification status of such monitoring system. For the
1027 purposes of this subsection, an audit shall be either a field audit or an audit of any
1028 information submitted to the Agency. By issuing the notice of disapproval, the
1029 Agency revokes prospectively the certification status of the emissions monitoring
1030 system. The data measured and recorded by the monitoring system shall not be
1031 considered valid quality-assured data from the date of issuance of the notification
1032 of the revoked certification status until the date and time that the owner or
1033 operator completes subsequently approved initial certification or recertification
1034 tests for the monitoring system. The owner or operator shall follow the applicable
1035 initial certification or recertification procedures in Section 225.250 of this Subpart
1036 for each disapproved monitoring system.

1037

1038 **Section 225.261 Additional Requirements to Provide Heat Input Data**

1039

1040 The owner or operator of an EGU that monitors and reports mercury mass emissions using a
1041 mercury concentration monitoring system and a flow monitoring system shall also monitor and
1042 report heat input rate at the EGU level using the procedures set forth in 40 CFR 75.

1043

1044 **Section 225.263 Monitoring of Gross Electrical Output**

1045

1046 The owner or operator of an EGU complying with this Subpart by means of Section
 1047 225.230(a)(1) or using electrical output (O_i) and complying by means of Section 225.230(b) or
 1048 (d) or Section 225.232 of this Subpart shall monitor gross electrical output of the associated
 1049 generator(s) in MWh on an hourly basis.

1050

1051 **Section 225.265 Coal Analysis for Input Mercury Levels**

1052

1053 a) The owner or operator of an EGU complying with this Subpart by means of
 1054 Section 225.230(a)(2) or using input mercury levels (I_i) and complying by means
 1055 of Section 225.230(b) or (d) or Section 225.232 of this Subpart shall:

1056

1057 1) Perform daily sampling of the coal combusted in the EGU for mercury
 1058 content. The owner or operator of such EGU shall collect a minimum of
 1059 one 2-lb grab sample per day of operation from the belt feeders anywhere
 1060 between the crusher house or breaker building and the boiler. The sample
 1061 shall be taken in such a manner so as to provide a representative mercury
 1062 content for the coal burned on that day.

1063

1064 2) Analyze the grab coal sample for the following:

1065

1066 A) Determine the heat content using ASTM D5865-04 or equivalent
 1067 approved in writing by the Agency.

1068

1069 B) Determine the moisture content using ASTM D3173-03 or
 1070 equivalent approved in writing by the Agency.

1071

1072 C) Measure the mercury content using ASTM D6414-01, ASTM
 1073 D3684-01, or equivalent approved in writing by the Agency.

1074

1075 3) The owner or operator of multiple EGUs at the same source using the
 1076 same crusher house or breaker building may take one sample per crusher
 1077 house or breaker building, rather than one per EGU.

1078

1079 4) The owner or operator of an EGU shall use the data analyzed under
 1080 subsection (b) of this Section to determine the mercury content in terms of
 1081 lbs/trillion Btu.

1082

1083 b) The owner or operator of an EGU that must conduct sampling and analysis of coal
 1084 pursuant to subsection (a) of this Section shall begin such activity by the
 1085 following date:

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1087 1) If the EGU is in daily service, at least 30 days before the start of the month
 1088 for which such activity will be required.

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- 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 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 that 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:

- 1132 A) Monthly emissions of mercury from the EGU.
- 1133
- 1134 B) For an EGU for which the owner or operator is complying by
- 1135 means of Section 225.230(b) or (d) of this Subpart, records of the
- 1136 monthly allowable emissions of mercury from the EGU.
- 1137
- 1138 4) The owner or operator of an EGU that is participating in an Averaging
- 1139 Demonstration pursuant to Section 225.232 of this Subpart shall maintain
- 1140 records identifying all sources and EGUs covered by the Demonstration
- 1141 for each month and, within 60 days after the end of each calendar month,
- 1142 calculate and record the actual and allowable mercury emissions of the
- 1143 EGU for the month and the applicable 12-month rolling period.
- 1144
- 1145 5) The owner or operator of an EGU shall maintain the following records
- 1146 related to quality assurance activities conducted for emissions monitoring
- 1147 systems:
- 1148
- 1149 A) The results of quarterly assessments conducted under Section 2.2
- 1150 of appendix B of 40 CFR 75; and
- 1151
- 1152 B) Daily/weekly system integrity checks under Section 2.6 of
- 1153 appendix B of 40 CFR 75.
- 1154
- 1155 6) The owner or operator of an EGU shall maintain an electronic copy of all
- 1156 electronic submittals to the USEPA under 40 CFR 75.84(f).
- 1157
- 1158 7) The owner or operator of an EGU shall retain all records required by this
- 1159 Section at the source unless otherwise provided in the CAAPP permit
- 1160 issued for the source and shall make a copy of any record available to the
- 1161 Agency upon request.
- 1162
- 1163 b) Quarterly Reports. The owner or operator of a source with one or more EGUs
- 1164 shall submit quarterly reports to the Agency as follows:
- 1165
- 1166 1) These reports shall include the following information for operation of the
- 1167 EGUs during the quarter:
- 1168
- 1169 A) The total operating hours of each EGU and the mercury CEMS, as
- 1170 also reported in accordance with 40 CFR 75.
- 1171
- 1172 B) A discussion of any significant changes in the measures used to
- 1173 control emissions of mercury from the EGUs or the coal supply to
- 1174 the EGUs, including changes in the source of coal.

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- C) Summary information on the performance of the mercury CEMS. When the mercury CEMS was not inoperative, 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 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:
- 1) That the monitoring data submitted were recorded in accordance with the applicable requirements of this Section 225.290 and Sections 225.240 through 225.270 of this Subpart, and 40 CFR 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):
 - A) That:
 - i) The mercury add-on emission controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system was operating within the range of parameters listed in the

1218 quality assurance/quality control program under appendix
1219 B to 40 CFR 75; or

1220
1221 ii) With regard to a flue gas desulfurization system or a
1222 selective catalytic reduction system, quality-assured SO₂
1223 emission data recorded in accordance with 40 CFR 75
1224 document that the flue gas desulfurization system was
1225 operating properly, or quality-assured NO_x emission data
1226 recorded in accordance with 40 CFR 75 document that the
1227 selective catalytic reduction system was operating properly,
1228 as applicable; and

1229
1230 B) The substitute data values do not systematically underestimate
1231 mercury emissions.

1232
1233 d) Annual Certification of Compliance

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1235 1) The owner or operator of a source with one or more EGUs subject to this
1236 Subpart shall submit to the Agency an Annual Certification of Compliance
1237 with this Subpart no later than May 1 of each year and shall address
1238 compliance for the previous calendar year. Such certification shall be
1239 submitted to the Agency, Air Compliance and Enforcement Section, and
1240 the Air Regional Field Office.

1241
1242 2) Annual Certifications of Compliance shall indicate whether compliance
1243 existed for each EGU for each month in the year covered by the
1244 Certification and certification to that effect. In addition, for each EGU,
1245 the owner or operator shall provide the following:

1246
1247 A) If complying with this Subpart by means of Section
1248 225.230(a)(1)(A) or 225.237(a)(1)(A):

1249
1250 i) Actual emissions rate, in lb/GWh, for each 12-month
1251 rolling period ending in the year covered by the
1252 Certification;

1253
1254 ii) Actual emissions, in lbs, and gross electrical output, in
1255 GWh, for each 12-month rolling period ending in the year
1256 covered by the Certification; and

1257
1258 iii) Actual emissions, in lbs, and gross electrical output, in
1259 GWh, for each month in the year covered by the
1260 Certification and in the previous year.

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- 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 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-

- 1345 f) Quality Assurance RATA Reports. The owner or operator of an EGU shall
1346 submit to the Agency, Air Compliance and Enforcement Section, the quality
1347 assurance RATA report for each EGU or group of EGUs monitored at a common
1348 stack and each non-EGU under 40 CFR 75.82(b)(2)(ii) within 45 days after
1349 completing a quality assurance RATA.
1350

1351 **Section 225.295 Treatment of Mercury Allowances**
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1353 Any mercury allowances allocated to the Agency by the USEPA shall be treated as follows:
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- 1355 a) No such allowances shall be allocated to any owner or operator of an EGU or
1356 other sources of mercury emissions into the atmosphere or discharges into the
1357 waters of the State.
1358
1359 b) The Agency shall hold all allowances allocated by the USEPA to the State. At the
1360 end of each calendar year, the Agency shall instruct the USEPA to retire
1361 permanently all such allowances.