

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE B: AIR POLLUTION
3 CHAPTER I: POLLUTION CONTROL BOARD
4 SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS
5 FOR STATIONARY SOURCES
6

7 PART 225
8 CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES
9

10 SUBPART A: GENERAL PROVISIONS
11

| | | |
|----|---------|-----------------------------|
| 12 | Section | |
| 13 | 225.100 | Severability |
| 14 | 225.120 | Abbreviations and Acronyms |
| 15 | 225.130 | Definitions |
| 16 | 225.140 | Incorporations by Reference |

17
18 SUBPART B: CONTROL OF MERCURY EMISSIONS
19 FROM COAL-FIRED ELECTRIC GENERATING UNITS
20

| | | |
|----|---------|---|
| 21 | Section | |
| 22 | 225.200 | Purpose |
| 23 | 225.202 | Measurement Methods |
| 24 | 225.205 | Applicability |
| 25 | 225.210 | Compliance Requirements |
| 26 | 225.220 | Clean Air Act Permit Program (CAAPP) Permit Requirements |
| 27 | 225.230 | Emission Standards for EGUs at Existing Sources |
| 28 | 225.232 | Averaging Demonstrations for Existing Sources |
| 29 | 225.235 | Units Scheduled for Permanent Shut Down |
| 30 | 225.234 | Temporary Technology-Based Standard for EGUs at Existing Sources |
| 31 | 225.237 | Emission Standards for New Sources with EGUs |
| 32 | 225.238 | Temporary Technology-Based Standard for New Sources with EGUs |
| 33 | 225.240 | General Monitoring and Reporting Requirements |
| 34 | 225.250 | Initial Certification and Recertification Procedures for Emissions Monitoring |
| 35 | 225.260 | Out of Control Periods for Emission Monitors |
| 36 | 225.261 | Additional Requirements to Provide Heat Input Data |
| 37 | 225.263 | Monitoring of Gross Electrical Output |
| 38 | 225.265 | Coal Analysis for Input Mercury Levels |
| 39 | 225.270 | Notifications |
| 40 | 225.290 | Recordkeeping and Reporting |
| 41 | 225.295 | Treatment of Mercury Allowances |

43 AUTHORITY: Implementing and authorized by Section 27 of the Environmental Protection Act
44 [415 ILCS 5/27].

45
46 SOURCE: Adopted at 30 Ill. Reg. _____, effective _____.

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

50
51 **Section 225.234 Temporary Technology-Based Standard for EGUs at Existing Sources**

52
53 a) General

- 54
55 1) At a source with EGUs that commenced commercial operation on or
56 before December 31, 2008, for an EGU that meets the eligibility criteria in
57 subsection (b) of this Section, as an alternative to compliance with the
58 mercury emission standards in Section 225.230 of this Subpart, the owner
59 or operator of the EGU may temporarily comply with the requirements of
60 this Section, through June 30, 2015, as further provided in subsections (c),
61 (d), and (e) of this Section.
62
63 2) An EGU that is complying with the emission control requirements of this
64 Subpart by operating under this Section may not be included in a
65 compliance demonstration involving other EGUs during the period that it
66 is operating under this Section.
67
68 3) The owner or operator of an EGU that is complying with this Subpart by
69 means of this Section is not excused from applicable monitoring,
70 recordkeeping, and reporting requirements in Sections 225.240 through
71 225.290 of this Subpart.
72

73 b) Eligibility

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

- 76
77 1) The EGU is equipped and operated with the air pollution control
78 equipment or systems that include injection of halogenated activated
79 carbon and either a cold-side electrostatic precipitator or a fabric filter.
80
81 2) The owner or operator of the EGU is injecting halogenated activated
82 carbon in an optimum manner for control of mercury emissions, which
83 shall include injection of Alstrom, Norit, Sorbent Technologies, or other
84 halogenated activated carbon that the owner or operator of the EGU shows
85 to have similar or better effectiveness for control of mercury emissions, at

86 least at the following rates, unless other provisions for injection of
 87 halogenated activated carbon are established in a federally enforceable
 88 operating permit issued for the EGU, with an injection system designed
 89 for effective absorption of mercury, considering the configuration of the
 90 EGU and its ductwork. For this purpose, flue gas flow rate shall be
 91 determined for the point of sorbent injection (provided, however, that this
 92 flow rate may be assumed to be identical to the stack flow rate if the gas
 93 temperatures at the point of injection and the stack are normally within
 94 100° F) or may otherwise be calculated from the stack flow rate, corrected
 95 for the difference in gas temperatures.

- 96
- 97 A) For an EGU firing subbituminous coal, 5.0 pounds per million
 98 actual cubic feet.
- 99
- 100 B) For an EGU firing bituminous coal, 10.0 pounds per million actual
 101 cubic feet.
- 102
- 103 C) For an EGU firing a blend of subbituminous and bituminous coal,
 104 a rate that is the weighted average of the above rates, based on the
 105 blend of coal being fired.
- 106
- 107 D) A rate or rates set on a unit-specific basis that are lower than the
 108 rate specified above to the extent that the owner or operator of the
 109 EGU demonstrates that such rate or rates are needed so that carbon
 110 injection would not increase particulate matter emissions or
 111 opacity so as to threaten compliance with applicable regulatory
 112 requirements for particulate matter or opacity.
- 113
- 114 3) The total capacity of the EGUs that operate under this Section does not
 115 exceed the applicable value below:
- 116
- 117 A) For the owner or operator of more than one existing source with
 118 EGUs, 25 percent of the total rated capacity, in MW, of all the
 119 EGUs at such existing sources that it owns or operates, other than
 120 any EGUs operating pursuant to Section 225.235 of this Subpart.
- 121
- 122 B) For the owner or operator of only a single existing source with
 123 EGUs (i.e., City, Water, Light & Power, City of Springfield, ID
 124 167120AAO; Electric Energy, Inc., ID 127855AAC; Kincaid
 125 Generating Station, ID 021814AAB; and Southern Illinois Power
 126 Cooperative/Marion Generating Station, ID 199856AAC), 25
 127 percent of the total rated capacity, in MW, of the all the EGUs at

128 such existing sources, other than any EGUs operating pursuant to
129 Section 225.235 of this Subpart.
130

131 c) Compliance Requirements

132
133 1) Emission Control Requirements

134 The owner or operator of an EGU that is operating pursuant to this Section
135 shall continue to maintain and operate the EGU to comply with the criteria
136 for eligibility for operation under this Section, except during an evaluation
137 of the current sorbent, alternative sorbents or other techniques to control
138 mercury emissions, as provided by subsection (e) of this Section.
139

140 2) Monitoring and Recordkeeping Requirements

141 In addition to complying with all applicable reporting requirements in
142 Sections 225.240 through 225.290 of this Subpart, the owner or operator
143 of an EGU operating pursuant to this Section shall also:
144

145 A) Through December 31, 2012, maintain records of the usage of
146 activated carbon, the exhaust gas flow rate from the EGU, and the
147 activated carbon feed rate, in pounds per million actual cubic feet
148 of exhaust gas at the injection point, on a weekly average.
149

150 B) Beginning January 1, 2013, monitor activated carbon feed rate to
151 the EGU, flue gas temperature at the point of sorbent injection, and
152 exhaust gas flow rate from the EGU, automatically recording this
153 data and the activated carbon feed rate, in pounds per million
154 actual cubic feet of exhaust gas at the injection point, on an hourly
155 average.
156

157 C) If a blend of bituminous and subbituminous coal is fired in the
158 EGU, records of the amount of each type of coal burned and the
159 required injection rate for injection of halogenated activated
160 carbon, on a weekly basis.
161

162 3) Notification and Reporting Requirements

163 In addition to complying with all applicable reporting requirements in
164 Sections 225.240 through 225.290 of this Subpart, the owner or operator
165 of an EGU operating pursuant to this Section shall also submit the
166 following notifications and reports to the Agency:
167

168 A) Written notification prior to the month in which any of the
169 following events will occur: the EGU will no longer be eligible to
170 operate under this Section due to a change in operation; the type of

171 coal fired in the EGU will change; the mercury emission standard
172 with which the owner or operator is attempting to comply for the
173 EGU will change; or operation under this Section will be
174 terminated.

175
176 B) Quarterly reports for the recordkeeping and monitoring conducted
177 pursuant to subsection (c)(2) of this Section.

178
179 C) Annual reports detailing activities conducted for the EGU to
180 further improve control of mercury emissions, including the
181 measures taken during the past year and activities planned for the
182 current year.

183
184 d) Applications to Operate under the Technology-Based Standard

185
186 1) Application Deadlines

187
188 A) The owner or operator of an EGU that is seeking to operate the
189 EGU under this Section shall submit an application to the Agency
190 no later than three months prior to the date that compliance with
191 Section 225.230 of this Subpart would otherwise have to be
192 demonstrated. For example, the owner or operator of an EGU that
193 is applying to operate the EGU pursuant to this Section on June 30,
194 2010, when compliance with applicable mercury emission
195 standards must be first demonstrated, shall apply by March 31,
196 2010 to operate under this Section.

197
198 B) Unless the Agency finds that the EGU is not eligible to operate
199 under this Section or that the application for operation under this
200 Section does not meet the requirements of subsection (d)(2) of this
201 Section, the owner or operator of the EGU is authorized to operate
202 the EGU under this Section beginning 60 days after receipt of the
203 application by the Agency.

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205 C) The owner or operator of an EGU operating pursuant to this
206 Section must reapply to operate pursuant to this Section:

207
208 i) If it operated pursuant to this Section during the period of
209 June 2010 through December 2012 and it seeks to operate
210 pursuant to this Section during the period from January
211 2013 through June 2015.

212

213 ii) If it is planning a physical change to or a change in the
214 method of operation of the EGU, control equipment or
215 practices for injection of activated carbon that is expected
216 to reduce the level of control of mercury emissions.
217

218 2) Contents of Application

219 An application to operate pursuant to this Section shall be submitted as an
220 application for a new or revised federally enforceable operating permit for
221 the EGU and include the following:
222

223 A) A formal request to operate pursuant to this Section showing that
224 the EGU is eligible to operate pursuant to this Section and
225 describing the reason for the request, the measures that have been
226 taken for control of mercury emissions, and factors preventing
227 more effective control of mercury emissions from the EGU.
228

229 B) The applicable mercury emission standard in Section 225.230(a)
230 with which the owner or operator of the EGU is attempting to
231 comply and a summary of relevant mercury emission data for the
232 EGU.
233

234 C) If a unit-specific rate or rates for carbon injection are proposed
235 pursuant to subsection (b)(2) of this Section, detailed information
236 to support the proposed injection rates.
237

238 D) An action plan describing the measures that will be taken while
239 operating under this Section to improve control of mercury
240 emissions. This plan shall address measures such as evaluation of
241 alternative forms or sources of activated carbon, changes to the
242 injection system, changes to operation of the unit that affect the
243 effectiveness of mercury absorption and collection, changes to the
244 particulate matter control device to improve performance and
245 changes to other emission control devices. For each measure
246 contained in the plan, the plan shall provide a detailed description
247 of the specific actions that are planned, the reason that the measure
248 is being pursued and the range of improvement in control of
249 mercury that is expected, and the factors that affect the timing for
250 carrying out the measure, with the current schedule for the
251 measure.
252

253 e) Evaluation of Alternative Control Techniques for Mercury Emissions
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- 255 1) During an evaluation of the effectiveness of the current sorbent,
256 alternative sorbent, or other technique to control mercury emissions, the
257 owner or operator of an EGU operating under this Section need not
258 comply with the eligibility criteria for operation under this Section as
259 needed to carry out an evaluation of the practicality and effectiveness of
260 such technique, as further provided as follows:
261
 - 262 A) The owner or operator of the EGU shall conduct the evaluation in
263 accordance with a formal evaluation program submitted to the
264 Illinois EPA at least 30 days in advance.
 - 265 B) The duration and scope of the evaluation shall not exceed the
266 duration and scope reasonably needed to complete the desired
267 evaluation of the alternative control technique, as initially
268 addressed by the owner or owner in a support document submitted
269 with the evaluation program.
 - 270 C) Notwithstanding 35 Ill. Adm. Code 201.146(hhh), the owner or
271 operator of the EGU shall obtain a construction permit for any new
272 or modified air pollution control equipment to be constructed as
273 part of the evaluation of the alternative control technique.
 - 274 D) The owner or operator of the EGU shall submit a report to the
275 Illinois EPA, no later than 90 days after the conclusion of the
276 evaluation, describing the evaluation that was conducted and
277 providing, the results of the evaluation.
- 278 2) If the evaluation of the alternative control technique shows less effective
279 control of mercury emissions from the EGU than achieved with the prior
280 control technique, the owner or operator of the EGU shall resume use of
281 the prior control technique. If the evaluation of the alternative control
282 technique shows comparable effectiveness, the owner or operator of the
283 EGU may either continue to use the alternative control technique in an
284 optimum manner or resume use of the prior control technique. If the
285 evaluation of the alternative control technique shows more effective
286 control of mercury emissions, the owner or operator of the EGU shall
287 continue to use the alternative control technique in an optimum manner, if
288 it continues to operate under this Section.

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

- 295 a) General
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- 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.

317 b) Eligibility

318 To be eligible to operate an EGU under this Section, the following criteria shall
319 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 a system 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

341 EGU, with an injection system designed for effective absorption of
 342 mercury. For this purpose, flue gas flow rate shall be determined for the
 343 point of sorbent injection (provided, however, that this flow rate may be
 344 assumed to be identical to the stack flow rate if the gas temperatures at the
 345 point of injection and the stack are normally within 100° F) or may
 346 otherwise be calculated from the stack flow rate, corrected for the
 347 difference in gas temperatures.

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- 349 A) For an EGU firing subbituminous coal, 5.0 pounds per million
- 350 actual cubic feet.
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- 352 B) For an EGU firing bituminous coal, 10.0 pounds per million actual
- 353 cubic feet.
- 354
- 355 C) For an EGU firing a blend of subbituminous and bituminous coal,
- 356 a rate that is the weighted average of the above rates, based on the
- 357 blend of coal being fired.
- 358

359 c) Compliance Requirements

- 360
- 361 1) Emission Control Requirements
- 362 The owner or operator of an EGU that is operating pursuant to this Section
- 363 shall continue to maintain and operate the EGU to comply with the criteria
- 364 for eligibility for operation under this Section, except during an evaluation
- 365 of the current sorbent, alternative sorbents or other techniques to control
- 366 mercury emissions, as provided by subsection (e) of this Section.
- 367
- 368 2) Monitoring and Recordkeeping Requirements
- 369 In addition to complying with all applicable reporting requirements in
- 370 Sections 225.240 through 225.290 of this Subpart, the owner or operator
- 371 of a new EGU operating pursuant to this Section shall also:
- 372
- 373 A) Monitor activated carbon feed rate to the EGU, flue gas
- 374 temperature at the point of sorbent injection, and exhaust gas flow
- 375 rate from the EGU, automatically recording this data and the
- 376 activated carbon feed rate, in pounds per million actual cubic feet
- 377 of exhaust gas at the injection point, on an hourly average.
- 378
- 379 B) If a blend of bituminous and subbituminous coal is fired in the
- 380 EGU, records of the amount of each type of coal burned and the
- 381 required injection rate for injection of halogenated activated
- 382 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 225.237 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

427 of activated carbon that is expected to reduce the level of control of
428 mercury emissions.

429
430 2) Contents of Application

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

434
435 A) A formal request to operate pursuant to this Section showing that
436 the EGU is eligible to operate pursuant to this Section and
437 describing the reason for the request, the measures that have been
438 taken for control of mercury emissions, and factors preventing
439 more effective control of mercury emissions from the EGU.

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441 B) The applicable mercury emission standard in Section 225.237 with
442 which the owner or operator of the EGU is attempting to comply
443 and a summary of relevant mercury emission data for the EGU.

444
445 C) If a unit-specific rate or rates for carbon injection are proposed
446 pursuant to subsection (b)(2) of this Section, detailed information
447 to support the proposed injection rates.

448
449 D) An action plan describing the measures that will be taken while
450 operating under this Section to improve control of mercury
451 emissions. This plan shall address measures such as evaluation of
452 alternative forms or sources of activated carbon, changes to the
453 injection system, changes to operation of the unit that affect the
454 effectiveness of mercury absorption and collection, and changes to
455 other emission control devices. For each measure contained in the
456 plan, the plan shall provide a detailed description of the specific
457 actions that are planned, the reason that the measure is being
458 pursued and the range of improvement in control of mercury that is
459 expected, and the factors that affect the timing for carrying out the
460 measure, with the current schedule for the measure.

461
462 e) Evaluation of Alternative Control Techniques for Mercury Emissions

463
464 1) During an evaluation of the effectiveness of the current sorbent,
465 alternative sorbent, or other technique to control mercury emissions, the
466 owner or operator of an EGU operating under this Section need not
467 comply with the eligibility criteria for operation under this Section as
468 needed to carry out an evaluation of the practicality and effectiveness of
469 such technique, as further provided as follows:

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- 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 operator 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.
- 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.

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

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.

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.

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 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~~ subbituminous coal is fired in the EGU, records of the amount of each type ~~erof~~ 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.

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 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 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 as follows:~~

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.

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:

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) ~~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 ~~a~~ system 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 $100^{\circ} F$ 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

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~~subbituminous 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.

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.

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~~ as follows:

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 ~~owneroperator~~ 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.

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.

~~ILLINOIS REGISTER~~

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~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED RULE~~

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED RULES

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

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|--------------------------|--------------------------|
| <u>Section Numbers</u> : | <u>Proposed Action</u> : |
| 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 USC § 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

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED RULES

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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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 any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Do these proposed rules 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

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED RULES

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.

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.

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED RULES

- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal air pollution control regulations applicable to affected sources will be required.
- 14) Regulatory Agenda on which this rulemaking was summarized: January 2006

The full text of the Proposed Rules begins on the next page: