**Section 225.294 Combined Pollutant Standard: Control Technology Requirements and Emissions Standards for Mercury**

a) Control Technology Requirements for Mercury.

1) For each coal-fired EGU in a CPS group other than an EGU that is addressed by subsection (b) of this Section, the owner or operator of the EGU must install, if not already installed, and properly operate and maintain, by the dates set forth in subsection (a)(2) of this Section, ACI equipment complying with subsections (g), (h), (i), (j), and (k) of this Section, as applicable.

2) By the following dates, for the EGUs listed in subsections (a)(2)(A) and (B), which include hot and cold side ESPs, the owner or operator must install, if not already installed, and begin operating ACI equipment or the Agency must be given written notice that the EGU will be shut down on or before the following dates:

A) Fisk 19, Crawford 7, Crawford 8, Waukegan 7, and Waukegan 8 on or before July 1, 2008; and

B) Powerton 5, Powerton 6, Will County 3, Will County 4, Joliet 6, Joliet 7, and Joliet 8 on or before July 1, 2009.

b) Notwithstanding subsection (a) of this Section:

1) The following EGUs are not required to install ACI equipment because they will be permanently shut down, as addressed by Section 225.297, by the date specified:

A) EGUs that are required to permanently shut down:

i) On or before December 31, 2007, Waukegan 6; and

ii) On or before December 31, 2010, Will County 1 and Will County 2.

B) Any other specified EGU that is permanently shut down by December 31, 2010; and

2) On and after the date an EGU permanently ceases combusting coal, it is not required to install, operate, or maintain ACI equipment.

c) Beginning on January 1, 2015, and continuing thereafter, and measured on a rolling 12-month basis (the initial period is January 1, 2015, through December 31, 2015, and, then, for every 12-month period thereafter), each specified EGU that has not permanently ceased combusting coal, except Will County 3, shall achieve one of the following emissions standards:

1) An emissions standard of 0.0080 lbs mercury/GWh gross electrical output; or

2) A minimum 90 percent reduction of input mercury.

d) On and after April 16, 2015, Will County 3 must not combust coal.

e) Compliance with Emission Standards

1) At any time prior to the dates required for compliance in subsections (c) and (d) of this Section, the owner or operator of a specified EGU, upon notice to the Agency, may elect to comply with the emissions standards of subsection (c) of this Section measured on either:

A) a rolling 12-month basis; or

B) a quarterly calendar basis pursuant to the emissions testing requirements in Section 225.239(a)(4), (c), (d), (e), (f), (g), (h), (i), and (j) of this Subpart until June 30, 2012.

2) Once an EGU is subject to the mercury emissions standards of subsection (c) of this Section, it shall not be subject to the requirements of subsections (g), (h), (i), (j) and (k) of this Section;

3) On and after the date an EGU permanently ceases combusting coal, it shall not be subject to the requirements of subsections (g), (h), (i), (j) and (k) of this Section.

f) Compliance with the mercury emissions standards or reduction requirement of this Section must be calculated in accordance with Section 225.230(a) or (b), or Section 225.232 until December 31, 2013.

g) For each EGU for which injection of halogenated activated carbon is required by subsection (a)(1) of this Section, the owner or operator of the EGU must inject halogenated activated carbon in an optimum manner.

1) Except as provided in subsection (h) of this Section, optimum manner is defined as all of the following:

A) The use of an injection system for effective absorption of mercury, considering the configuration of the EGU and its ductwork;

B) The injection of halogenated activated carbon manufactured by Alstom, Norit, or Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, or Calgon Carbon's FLUEPAC MC Plus, or the injection of any other halogenated activated carbon or sorbent that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions; and

C) The injection of sorbent at the following minimum rates, as applicable:

i) For an EGU firing subbituminous coal, 5.0 lbs per million actual cubic feet or, for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lb mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 2.5 lbs per million actual cubic feet;

ii) For an EGU firing bituminous coal, 10.0 lbs per million actual cubic feet or, for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lb mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 5.0 lbs per million actual cubic feet;

iii) For an EGU firing a blend of subbituminous and bituminous coal, a rate that is the weighted average of the rates specified in subsections (g)(1)(C)(i) and (ii) based on the blend of coal being fired; or

iv) A rate or rates set lower by the Agency, in writing, than the rate specified in any of subsection (g)(1)(C)(i), (ii), or (iii) of this Section on a unit-specific basis, provided that the owner or operator of the EGU has demonstrated that such rate or rates are needed so that carbon injection will not increase particulate matter emissions or opacity so as to threaten noncompliance with applicable requirements for particulate matter or opacity.

2) For purposes of subsection (g)(1)(C) of this Section, the flue gas flow rate shall be the gas flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles' Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator (Vesp = Vstack x Tesp/Tstack, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine).

h) The owner or operator of an EGU that seeks to operate an EGU with an activated carbon injection rate or rates that are set on a unit-specific basis pursuant to subsection (g)(1)(C)(iv) of this Section must submit an application to the Agency proposing such rate or rates, and must meet the requirements of subsections (h)(1) and (h)(2) of this Section, subject to the limitations of subsections (h)(3) and (h)(4) of this Section:

1) The application must be submitted as an application for a new or revised federally enforceable operation permit for the EGU, and it must include a summary of relevant mercury emissions data for the EGU, the unit-specific injection rate or rates that are proposed, and detailed information to support the proposed injection rate or rates;

2) This application must be submitted no later than the date that activated carbon must first be injected. For example, the owner or operator of an EGU that must inject activated carbon pursuant to subsection (a)(1) of this Section must apply for unit-specific injection rate or rates by July 1, 2008. Thereafter, the owner or operator may supplement its application;

3) Any decision of the Agency denying a permit or granting a permit with conditions that set a lower injection rate or rates may be appealed to the Board pursuant to Section 39 of the Act; and

4) The owner or operator of an EGU may operate at the injection rate or rates proposed in its application until a final decision is made on the application including a final decision on any appeal to the Board.

i) During any evaluation of the effectiveness of a listed sorbent, alternative sorbent, or other technique to control mercury emissions, the owner or operator of an EGU need not comply with the requirements of subsection (g) of this Section for any system needed to carry out the evaluation, as further provided as follows:

1) The owner or operator of the EGU must conduct the evaluation in accordance with a formal evaluation program submitted to the Agency at least 30 days prior to commencement of the evaluation;

2) The duration and scope of the evaluation may not exceed the duration and scope reasonably needed to complete the desired evaluation of the alternative control techniques, as initially addressed by the owner or operator in a support document submitted with the evaluation program;

3) The owner or operator of the EGU must submit a report to the Agency no later than 30 days after the conclusion of the evaluation that describes the evaluation conducted and which provides the results of the evaluation; and

4) If the evaluation of alternative control techniques shows less effective control of mercury emissions from the EGU than was achieved with the principal control techniques, the owner or operator of the EGU must resume use of the principal control techniques. If the evaluation of the alternative control technique shows comparable effectiveness to the principal control technique, the owner or operator of the EGU may either continue to use the alternative control technique in a manner that is at least as effective as the principal control technique or it may resume use of the principal control technique. If the evaluation of the alternative control technique shows more effective control of mercury emissions than the control technique, the owner or operator of the EGU must continue to use the alternative control technique in a manner that is more effective than the principal control technique, so long as it continues to be subject to this Section.

j) In addition to complying with the applicable recordkeeping and monitoring requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of Sections 225.291 through 225.299 must also comply with the following additional requirements:

1) For the first 36 months that injection of sorbent is required, it must maintain records of the usage of sorbent, the flue gas flow rate from the EGU (and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack), and the sorbent feed rate, in pounds per million actual cubic feet of flue gas, on a weekly average;

2) After the first 36 months that injection of sorbent is required, it must monitor activated sorbent feed rate to the EGU, gas flow rate in the stack, and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack. It must automatically record this data and the sorbent carbon feed rate, in pounds per million actual cubic feet of flue gas, on an hourly average; and

3) If a blend of bituminous and subbituminous coal is fired in the EGU, it must keep records of the amount of each type of coal burned and the required injection rate for injection of activated carbon on a weekly basis.

k) In addition to complying with the applicable reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with Section 225.230(a) by means of the CPS must also submit quarterly reports for the recordkeeping and monitoring conducted pursuant to subsection (j) of this Section.

l) Until June 30, 2012, as an alternative to the CEMS (or excepted monitoring system) monitoring, recordkeeping, and reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU may elect to comply with the emissions testing, monitoring, recordkeeping, and reporting requirements in Section 225.239(c), (d), (e), (f)(1) and (2), (h)(2), (i)(3) and (4), and (j)(1).

m) Notwithstanding any other provision in this Subpart, the requirements in Sections 225.240 through 225.290 of this Subpart, and any other mercury-related monitoring, recordkeeping, notice, analysis, certification, and reporting requirements set forth in this Subpart, including in this CPS, will not apply to a specified EGU on and after the date the EGU permanently ceases combusting coal.

(Source: Amended at 39 Ill. Reg. 16225, effective December 7, 2015)