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

a) Emission Standards.

1) Except as provided in Sections 225.230(b) and (d), 225.232 through 225.234, 225.239, and 225.291 through 225.299 of this Subpart B, beginning July 1, 2009, the owner or operator of a source with one or more EGUs subject to this Subpart B that commenced commercial operation on or before December 31, 2008, must comply with one of the following standards for each EGU on a rolling 12-month basis:

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

B) A minimum 90-percent reduction of input mercury.

2) For an EGU complying with subsection (a)(1)(A) of this Section, the mercury emission rate during quality-assured monitor operating (QAMO) hours of the EGU for each 12-month rolling period, as monitored in accordance with this Subpart B and calculated as follows, must not exceed the applicable emission standard:



Where:

|  |  |  |
| --- | --- | --- |
| *ER* | = | Mercury emissions rate of the EGU during QAMO hours for the particular 12-month rolling period, expressed in lb/GWh. |
| *Ei* | = | Mercury emissions of the EGU during QAMO hours, in lbs, in an individual month in the 12-month rolling period, as determined in accordance with the emissions monitoring provisions of this Subpart B. |
| *Oi* | = | Gross electrical output of the EGU during QAMO hours, in GWh, in an individual month in the 12-month rolling period, as determined in accordance with Section 225.263 of this Subpart B. |

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 B and calculated as follows, must meet or exceed the applicable efficiency requirement:



Where:

|  |  |  |
| --- | --- | --- |
| *CE* | = | Control efficiency for mercury emissions of the EGU during QAMO hours for the particular 12-month rolling period, expressed as a percent. |
| *Ei* | = | Mercury emissions of the EGU, in lbs during QAMO hours, in an individual month in the 12-month rolling period, as determined in accordance with the emissions monitoring provisions of this Subpart B. |
| *Ii* | = | Amount of mercury in the fuel fired in the EGU during QAMO hours, in lbs, in an individual month in the 12-month rolling period, as determined in accordance with Section 225.265 of this Subpart B. Ii is determined by multiplying the amount of mercury in the fuel fired in the EGU in month *i* by the number of QAMO hours in that month, and dividing that product by the number of EGU operating hours in that month. |

b) Alternative Emission Standards for Single EGUs.

1) As an alternative to compliance with the emission standards in subsection (a) of this Section, the owner or operator of the EGU may comply with the emission standards of this Subpart B by demonstrating that the actual emissions of mercury from the EGU are less than the allowable emissions of mercury from the EGU on a rolling 12-month basis.

2) For the purpose of demonstrating compliance with the alternative emission standards of this subsection (b), for each rolling 12-month period, the emissions of mercury from the EGU, as monitored in accordance with this Subpart B, must not exceed the allowable emissions of mercury from the EGU, as further provided by the following formulas:







Where:

|  |  |  |
| --- | --- | --- |
| *E12* | = | Mercury emissions of the EGU during QAMO hours for the particular 12-month rolling period. |
| *A12* | = | Allowable mercury emissions of the EGU during QAMO hours for the particular 12-month rolling period. |
| *Ei* | = | Mercury emissions of the EGU during QAMO hours in an individual month in the 12-month rolling period. |
| *Ai* | = | Allowable mercury emissions of the EGU during QAMO hours 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. Ai is determined by multiplying the allowable mercury emissions based on either input mercury or electrical output in month i by the number of QAMO hours in that month, and dividing that product by the number of EGU operating hours in that month. |
| *AInput 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. |
| *AOutput i* | = | Allowable mercury emissions of the EGU in a particular month based on the electrical output from the EGU, calculated as the product of the output based mercury limit, i.e., 0.0080 lb/GWh, and the electrical output from the EGU, in GWh. |

3) If the owner or operator of an EGU does not conduct the necessary sampling, analysis, and recordkeeping, in accordance with Section 225.265 of this Subpart B, to determine the mercury input to the EGU, the allowable emissions of the EGU must be calculated based on the electrical output of the EGU.

c) If two or more EGUs are served by common stacks and the owner or operator conducts monitoring for mercury emissions in the common stacks, as provided for by Sections 1.14 through 1.18 of Appendix B to this Part, such that the mercury emissions of each EGU are not determined separately, compliance of the EGUs with the applicable emission standards of this Subpart B must be determined as if the EGUs were a single EGU.

d) Alternative Emission Standards for Multiple EGUs.

1) As an alternative to compliance with the emission standards of subsection (a) of this Section, the owner or operator of a source with multiple EGUs may comply with the emission standards of this Subpart B by demonstrating that the actual emissions of mercury from all EGUs at the source during QAMO hours are less than the allowable emissions of mercury from all EGUs at the source on a rolling 12-month basis.

2) For the purposes of the alternative emission standard of subsection (d)(1) of this Section, for each rolling 12-month period, the actual emissions of mercury from all the EGUs at the source during QAMO hours, as monitored in accordance with this Subpart B, must not exceed the sum of the allowable emissions of mercury from all the EGUs at the source, as further provided by the following formulas:







Where:

|  |  |  |
| --- | --- | --- |
| *ES* | = | Sum of the mercury emissions of the EGUs at the source during QAMO hours. |
| *AS* | = | Sum of the allowable mercury emissions of the EGUs at the source during QAMO hours. |
| *Ei* | = | Mercury emissions of an individual EGU at the source during QAMO hours, as determined in accordance with subsection (b)(2) of this Section. |
| *Ai* | = | Allowable mercury emissions of an individual EGU at the source during QAMO hours, as determined in accordance with subsection (b)(2) of this Section. |
| *n* | = | Number of EGUs covered by the demonstration. |

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

(Source: Amended at 33 Ill. Reg. 10427, effective June 26, 2009)