

§ 63.8236

40 CFR Ch. I (7-1-06 Edition)

24 = Conversion factor, hours per day; and
 $P_{Cl_2,run}$ = Amount of chlorine produced during the test run, calculated using Equation 2 of this section, Mg Cl_2 .

(5) Calculate the average mercury emission rate for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using Equation 4 of this section as follows:

$$E_{Hg, avg} = \frac{\sum_{i=1}^n E_{Hg, run}}{n} \quad (\text{Eq. 4})$$

Where:

$E_{Hg, avg}$ = Average mercury emission rate for the by-product hydrogen stream or the end box ventilation system vent, if applicable, g Hg/Mg Cl_2 ;

$E_{Hg, run}$ = Mercury emission rate for each test run for the by-product hydrogen stream or the end box ventilation system vent, if applicable, g Hg/Mg Cl_2 , calculated using Equation 3 of this section; and

n = Number of test runs conducted for the by-product hydrogen stream or the end box ventilation system vent, if applicable.

(6) Calculate the total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at the mercury cell chlor-alkali production facility using Equation 5 of this section as follows:

$$E_{Hg, H_2EB} = \sum_{i=1}^n E_{Hg, avg} \quad (\text{Eq. 5})$$

Where:

E_{Hg, H_2EB} = Total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at the affected source, g Hg/Mg Cl_2 ;

$E_{Hg, avg}$ = Average mercury emission rate for each by-product hydrogen stream and each end box ventilation system vent, if applicable, g Hg/Mg Cl_2 , determined using Equation 4 of this section; and

n = Total number of by-product hydrogen streams and end box ventilation system vents at the affected source.

(b) *Mercury thermal recovery vents.* You must determine the milligrams of mercury per dscm exhaust discharged from mercury thermal recovery unit vents, using the procedures in paragraphs (b)(1) and (2) of this section.

(1) Calculate the concentration of mercury in milligrams of mercury per

dscm of exhaust for each test run for each mercury thermal recovery unit vent using Equation 6 of this section as follows:

$$C_{Hg, run} = \left[\frac{(m_{Hg})(10^{-3})}{(V_{m(std)})} \right] \quad (\text{Eq. 6})$$

Where:

$C_{Hg, run}$ = Mercury concentration for the test run, milligrams of mercury per dry standard cubic meter of exhaust;

m_{Hg} = Mass of mercury in test run sample, from Method 101, 101A, or 102, micrograms; 10⁻³ = Conversion factor, milligrams per microgram; and

$V_{m(std)}$ = Dry gas sample volume at standard conditions, from Method 101, 101A, or 102, dry standard cubic meters.

(2) Calculate the average concentration of mercury in each mercury thermal recovery unit vent exhaust using Equation 7 of this section as follows:

$$C_{Hg, avg} = \frac{\sum_{i=1}^n C_{Hg, run}}{n} \quad (\text{Eq. 7})$$

Where:

$C_{Hg, avg}$ = Average mercury concentration for the mercury thermal recovery unit vent, milligrams of mercury per dry standard cubic meter exhaust;

$C_{Hg, run}$ = Mercury concentration for each test run, milligrams of mercury per dry standard cubic meter of exhaust, calculated using Equation 6 of this section; and

n = Number of test runs conducted for the mercury thermal recovery unit vent.

§ 63.8236 How do I demonstrate initial compliance with the emission limitations and work practice standards?

(a) For each mercury cell chlor-alkali production facility, you have demonstrated initial compliance with the applicable emission limit for by-product hydrogen streams and end box ventilation system vents in § 63.8190(a)(2) if you comply with paragraphs (a)(1) and (2) of this section:

(1) Total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at the affected source, determined according to §§ 63.8232 and 63.8234(a), did not exceed the applicable

Environmental Protection Agency

§ 63.8242

emission limit in § 63.8190(a)(2)(i) or (ii); and

(2) If you have chosen the periodic monitoring option specified in § 63.8240(b) and your final control device is not a nonregenerable carbon adsorber, you have established a parameter value according to § 63.8232(f)(2).

(b) For each mercury recovery facility, you have demonstrated initial compliance with the applicable emission limit for mercury thermal recovery unit vents in § 63.8190(a)(3) if you comply with paragraphs (b)(1) and (2) of this section.

(1) Mercury concentration in each mercury thermal recovery unit vent exhaust, determined according to §§ 63.8232 and 63.8234(b), did not exceed the applicable emission limit in § 63.8190(a)(3)(i) or (ii); and

(2) If you have chosen the periodic monitoring option in § 63.8240(b) and have a final control device that is not a nonregenerable carbon adsorber, you have established a maximum or minimum monitoring value, as appropriate for your control device according to § 63.8232(f)(2).

(c) For each affected source, you have demonstrated initial compliance with the applicable work practice standards in § 63.8192 if you comply with paragraphs (c)(1) through (7) of this section.

(1) You certify in your Notification of Compliance Status that you are operating according to the work practice standards in § 63.8192(a) through (d).

(2) You choose the continuous cell room monitoring program option, you certify in your Notification of Compliance Status that you are operating according to the continuous cell room monitoring program under § 63.8192(g) and you have established your action level according to § 63.8192(g)(2).

(3) You certify in your Notification of Compliance Status that you are operating according to your washdown plan.

(4) You have submitted your washdown plan as part of your Notification of Compliance Status.

(5) You have submitted your continuous cell room monitoring plan, if applicable, as part of your Notification of Compliance Status.

(6) You have submitted your floor-level cell room monitoring plan, if applicable, as part of your Notification of Compliance Status.

(7) You have submitted records of the mass of virgin mercury added to cells for the 5 years preceding the applicable compliance date for your affected source as a part of the Notification of Compliance Status.

(d) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.8252(e).

CONTINUOUS COMPLIANCE REQUIREMENTS

§ 63.8240 What are my monitoring requirements?

For each by-product hydrogen stream, each end box ventilation system vent, and each mercury thermal recovery unit vent, you must monitor the mercury emissions using the procedures in paragraph (a) or (b) of this section.

(a) You must continuously monitor the mercury concentration using a mercury continuous emissions monitor according to the requirements in §§ 63.8242(a) and 63.8244(a); or

(b) You must periodically monitor the mercury emissions according to the requirements in §§ 63.8242(b) and 63.8244(b).

§ 63.8242 What are the installation, operation, and maintenance requirements for my continuous monitoring systems?

(a) If you choose the continuous mercury monitoring option under § 63.8240(a), you must install, operate, and maintain each mercury continuous emissions monitor according to paragraphs (a)(1) through (5) of this section.

(1) Each mercury continuous emissions monitor must sample, analyze, and record the concentration of mercury at least once every 15 minutes.

(2) Each mercury continuous emissions monitor analyzer must have a detector with the capability to detect a mercury concentration at or below 0.5 times the mercury concentration level measured during the performance test conducted according to § 63.8232.

(3) In lieu of a promulgated performance specification as required in