

**§ 63.8243**

§ 63.8(a)(2), you must develop a site-specific monitoring plan that addresses the elements in paragraphs (a)(3)(i) through (vi) of this section.

(i) Installation and measurement location downstream of the final control device for each by-product hydrogen stream, end box ventilation system vent, and mercury thermal recovery unit vent.

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

(iii) Performance evaluation procedures and acceptance criteria (*i.e.*, calibrations).

(iv) Ongoing operation and maintenance procedures according to the requirements of § 63.8(c)(1), (3), and (4)(ii).

(v) Ongoing data quality assurance procedures according to the requirements of § 63.8(d).

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(4) You must conduct a performance evaluation of each mercury continuous emissions monitor according to your site-specific monitoring plan.

(5) You must operate and maintain each mercury continuous emissions monitor in continuous operation according to the site-specific monitoring plan.

(b) If you choose the periodic monitoring option and your final control device is not a nonregenerable carbon adsorber, you must install, operate, and maintain a continuous parameter monitoring system (CPMS) for each parameter specified in § 63.8232(f)(1), according to § 63.8(c).

**§ 63.8243 What equations and procedures must I use to demonstrate continuous compliance?**

(a) *By-product hydrogen streams and end box ventilation system vents.* For each consecutive 52-week period, you must determine the g Hg/Mg Cl<sub>2</sub> produced from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at a mercury cell chlor-alkali production facility using the procedures in paragraphs (a)(1) through (3) of this section. You

must begin collecting data on the compliance date that is specified in § 63.8186 for your affected source and calculate your first 52-week average mercury emission rate at the end of the 52nd week after the compliance date.

(1) Each week, you must determine the weekly mercury emission rate in grams per week for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using one of the monitoring options in paragraph (a)(1)(i) or (ii) of this section.

(i) Continuous mercury monitoring according to §§ 63.8242 and 63.8244(a).

(ii) Periodic monitoring according to § 63.8244(b).

(2) Each week, you must determine the chlorine production and keep records of the production rate as required under § 63.8256(b)(6).

(3) Beginning 52 weeks after the compliance date specified in § 63.8186 for your affected source, you must calculate the 52-week average mercury emission rate from all by-product hydrogen steam and all end box ventilation system vents, if applicable, using Equation 1 of this section as follows:

$$E_{\text{Hg}} = \sum_{i=1}^{52} \left[ \frac{(R_{\text{week}_i})}{(P_{\text{Cl}_2, \text{week}_i})} \right] \quad (\text{Eq. 1})$$

Where:

$E_{\text{Hg}}$  = 52-week average mercury emission rate for week<sub>*i*</sub>, g Hg/Mg Cl<sub>2</sub>;

$R_{\text{week}_i}$  = Mercury emission rate for week<sub>*i*</sub> from paragraph (a)(1) of this section, g Hg per week;

$P_{\text{Cl}_2, \text{week}_i}$  = Amount of chlorine produced during week<sub>*i*</sub>, from paragraph (a)(2) of this section, Mg Cl<sub>2</sub> per week.

(b) *Mercury thermal recovery units.* If you choose the continuous monitoring option in § 63.8240(a), you must demonstrate continuous compliance using paragraph (b)(1) of this section. If you choose the periodic monitoring option in § 63.8240(b), you must demonstrate continuous compliance using paragraph (b)(2) of this section.

(1) You must calculate the daily average mercury concentration using Equation 2 of this section as follows:

$$C_{\text{Hg, dailyavg}} = \frac{\left( \sum_{i=1}^n C_{\text{Hg, } i} \right)}{n} \quad (\text{Eq. 2})$$

Where:

$C_{\text{Hg, dailyavg}}$  = Average mercury concentration for the operating day, milligrams per dry standard cubic meter;

$C_{\text{Hg, } i}$  = Concentration of mercury measured at the interval  $i$  (i.e., 15 minute reading) using a mercury continuous emission monitor, milligrams per dry standard cubic meter; and

$n$  = Number of concentration measurements taken during the operating day.

(2) You must calculate the daily average mercury concentration using the procedures in § 63.8234(b).

**§ 63.8244 How do I monitor and collect data to demonstrate continuous compliance?**

(a) *Continuous monitoring option.* You must monitor mercury concentration according to § 63.8242(a) at all times that the affected source is operating with the exception of paragraphs (a)(1) and (2) of this section.

(1) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor mercury emissions continuously (or collect data at all required intervals) at all times that the affected source is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(b) *Periodic monitoring option.* If you choose the periodic monitoring option under § 63.8240(b), you must monitor ac-

ording to the procedures in paragraph (b)(1) or (2) of this section.

(1) If your final control device is a nonregenerable carbon adsorber, then you must conduct at least three test runs per week meeting the criteria specified in § 63.8232(c)(1) and (2) to measure mercury emissions using the test methods specified in § 63.8232(d). Alternatively, you may use any other method that has been validated using the applicable procedures in Method 301, 40 CFR part 63, appendix A.

(2) If your final control device is anything other than a nonregenerable carbon adsorber, you must monitor according to the requirements of paragraphs (b)(2)(i) through (v) of this section.

(i) You must conduct at least three test runs per week meeting the criteria specified in § 63.8232(c)(1) and (2) to measure mercury emissions using the test methods specified in § 63.8232(d). Alternatively, you may use any other method that has been validated using the applicable procedures in Method 301, 40 CFR part 63, appendix A.

(ii) Except as specified in paragraph (b)(2)(iii) of this section, you must continuously collect data at least once every 15 minutes using a CPMS installed and operated according to § 63.8242(b) and record each 1-hour average from all measured data values during each 1-hour period for the applicable parameter identified in § 63.8232(f)(1) using the methods specified in § 63.8244(a).

(iii) As appropriate, you must continuously monitor the temperature specified in § 63.8232(f)(1)(vii) during each heating phase of the regeneration cycle of your carbon adsorber.

(iv) If the hourly average monitoring value of any applicable parameter recorded under paragraph (b)(2)(ii) of this section is below the minimum monitoring value or above the maximum monitoring value of that same parameter established under § 63.8232(f)(2) for 24 consecutive hours, your monitoring value is out of range and you must take corrective action as soon as practicable. The hourly average monitoring value must be above the minimum monitoring value or below the maximum monitoring value as appropriate for that parameter, within 48 hours of