

§ 63.11935 What CEMS and CPMS requirements must I meet to demonstrate initial and continuous compliance with the emission standards for process vents?

(a) *General requirements for CEMS and CPMS.* You must meet the requirements in paragraph (b) of this section for each CEMS specified in § 63.11925(c) used to demonstrate compliance with the emission limits for process vents in Table 1 or 2 to this subpart. You must meet the CPMS requirements in paragraph (c) of this section and establish your operating limits in paragraph (d) of this section for each operating parameter specified in Table 5 to this subpart for each process vent control device specified in § 63.11925(b) that is used to comply with the emission limits for process vents in Table 1 or 2 to this subpart, except that flow indicators specified in § 63.11940(a) are not subject to the requirements of this section.

(b) *CEMS.* You must install, operate, and maintain each CEMS according to paragraphs (b)(1) through (7) of this section and continuously monitor emissions.

(1) You must prepare your quality control program and site-specific performance evaluation test plan, as specified in § 63.8(d) and (e). You must submit your performance evaluation test plan to the Administrator for approval, as specified in § 63.8(e)(3).

(2) The monitoring equipment must be capable of providing a continuous record, recording data at least once every 15 minutes.

(3) You must conduct initial and periodic site-specific performance evaluations and any required tests of each CEMS according to your quality control program and site-specific performance evaluation test plan prepared as specified in § 63.8(d) and (e).

(4) If supplemental gases are added to the control device, you must correct the measured concentrations in accordance with § 63.11945(d)(3).

(5) You must operate and maintain the CEMS in continuous operation according to the quality control program and performance evaluation test plan. CEMS must record data at least once every 15 minutes.

(6) CEMS must meet the minimum accuracy and calibration frequency requirements specified in the performance specifications specified in paragraphs (b)(6)(i) and (ii) of this section, as applicable.

(i) A hydrogen chloride or dioxin/furan CEMS must meet the requirements of the promulgated performance specification for the CEMS.

(ii) A total hydrocarbon CEMS must meet the requirements of 40 CFR Part 60, Appendix B, performance specification 8A.

(7) Before commencing or ceasing use of a CEMS system, you must notify the Administrator as specified in paragraphs (b)(7)(i) and (ii) of this section.

(i) You must notify the Administrator 1 month before starting use of the continuous emissions monitoring system.

(ii) You must notify the Administrator 1 month before stopping use of the continuous emissions monitoring system, in which case you must also conduct a performance test within 60 days of ceasing operation of the system.

(c) *CPMS.* You must install, maintain, and operate each CPMS as specified in paragraphs (c)(1) through (6) of this section and continuously monitor operating parameters.

(1) As part of your quality control program and site-specific performance evaluation test plan prepared as specified in § 63.8(d) and (e), you must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements specified in paragraphs (c)(1)(i) through (v) of this section and § 63.8(d). You are not required to submit the plan for approval unless requested by the Administrator. You may request approval of monitoring system quality assurance and quality control procedure alternatives to those specified in paragraphs (c)(1)(i) through (v) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations.

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(ii) Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements.

(iii) Equipment performance checks, calibrations, or other audit procedures.

(iv) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1) and (3).

(v) Ongoing reporting and record-keeping procedures in accordance with provisions in § 63.10(c), (e)(1) and (e)(2)(i).

(2) The monitoring equipment must be capable of providing a continuous record, recording data at least once every 15 minutes.

(3) You must install, operate, and maintain each CPMS according to the procedures and requirements in your site-specific monitoring plan.

(4) You must conduct an initial and periodic site-specific performance evaluation tests of each CPMS according to your site-specific monitoring plan.

(5) All CPMS must meet the specific parameter (*e.g.*, minimum accuracy and calibration frequency) requirements specified in § 63.11940 and Table 7 to this subpart.

(6) Monitoring equipment for temperature, pressure, volumetric flow rate, mass flow rate and conductivity must be capable of measuring the appropriate parameter over a range that extends at least 20 percent beyond the normal expected operating range of values for that parameter. The data recording system associated with affected CPMS must have a resolution that is equal to or better than one-half of the required system accuracy.

(d) *Establish operating limit.* For each operating parameter that must be monitored in § 63.11925(c) for process vent control devices, you must establish an operating limit as specified in paragraphs (d)(1) through (4) of this section. You must establish each operating limit as an operating parameter range, minimum operating parameter level, or maximum operating parameter level as specified in Table 7 to this subpart. Where this subpart does not specify which format to use for your operating limit (*e.g.*, operating range or minimum operating level), you must determine which format is best to establish proper operation of the control

device such that you are meeting the emission limits specified in Table 1 or 2 to this subpart.

(1) For process vent control devices, the operating limit established for each monitored parameter specified in § 63.11940 must be based on the operating parameter values recorded during any performance test conducted to demonstrate compliance as required by § 63.11925(d)(4) and (e)(4) and may be supplemented by engineering assessments and/or manufacturer's recommendations. You are not required to conduct performance tests over the entire range of allowed operating parameter values. The established operating limit must represent the conditions for which the control device is meeting the emission limits specified in Table 1 or 2 to this subpart.

(2) You must include as part of the notification of compliance status or the operating permit application or amendment, the information in paragraphs (d)(2)(i) through (iv) of this section, as applicable, for each process vent control device requiring operating limits.

(i) Descriptions of monitoring devices, monitoring frequencies and operating scenarios.

(ii) The established operating limit of the monitored parameter(s).

(iii) The rationale for the established operating limit, including any data and calculations used to develop the operating limit and a description of why the operating limit indicates proper operation of the control device.

(iv) The rationale used to determine which format to use for your operating limit (*e.g.*, operating range, minimum operating level or maximum operating level), where this subpart does not specify which format to use.

(3) For batch processes, you may establish operating limits for individual batch emission episodes, including each distinct episode of process vent emissions or each individual type of batch process that generates wastewater, if applicable. You must provide rationale in a batch precompliance report as specified in § 63.11985(c)(2) instead of the notification of compliance status for the established operating limit. You must include any data and

calculations used to develop the operating limits and a description of why each operating limit indicates proper operation of the control device during the specific batch emission episode.

(4) If you elect to establish separate operating limits for different batch emission episodes within a batch process as specified in paragraph (d)(3) of this section, you must maintain daily records indicating each point at which you change from one operating limit to another, even if the monitoring duration for an operating limit is less than 15 minutes. You must maintain a daily record according to § 63.11990(e)(4)(i).

(e) *Reduction of CPMS and CEMS data.* You must reduce CEMS and CPMS data to 1-hour averages according to § 63.8(g) to compute the average values for demonstrating compliance specified in §§ 63.11925(e)(3)(ii), 63.11925(e)(4)(ii)(B), and 63.11960(c)(2) for CEMS and CPMS, as applicable.

§ 63.11940 What continuous monitoring requirements must I meet for control devices required to install CPMS to meet the emission limits for process vents?

As required in § 63.11925(c), you must install and operate the applicable CPMS specified in paragraphs (a) through (g) of this section for each control device you use to comply with the emission limits for process vents in Table 1 or 2 to this subpart. You must monitor, record, and calculate CPMS data averages as specified in Table 7 to this subpart. Paragraph (h) of this section provides an option to propose alternative monitoring parameters or procedures.

(a) *Flow indicator.* If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow.

(b) *Thermal oxidizer monitoring.* If you are using a thermal oxidizer to meet an emission limit in Table 1 or 2 to this subpart and you are required to use CPMS as specified in § 63.11925(c), you must equip the thermal oxidizer with the monitoring equipment specified in paragraphs (b)(1) through (3) of this section, as applicable.

(1) If a thermal oxidizer other than a catalytic thermal oxidizer is used, you

must install a temperature monitoring device in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs.

(2) Except as provided in paragraph (b)(3) of this section, where a catalytic thermal oxidizer is used, you must install temperature monitoring devices in the gas stream immediately before and after the catalyst bed. You must monitor the temperature differential across the catalyst bed.

(3) Instead of complying with paragraph (b)(2) of this section, and if the temperature differential between the inlet and outlet of the catalytic thermal oxidizer during normal operating conditions is less than 10 degrees Celsius (18 degrees Fahrenheit), you may elect to monitor the inlet temperature and conduct catalyst checks as specified in paragraphs (b)(3)(i) and (ii) of this section.

(i) You must conduct annual sampling and analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations within 15 days or by the next time any process vent stream is collected by the control device, whichever is sooner.

(ii) You must conduct annual internal inspections of the catalyst bed to check for fouling, plugging, or mechanical breakdown. You must also inspect the bed for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations within 15 days or by the next time any process vent stream is collected by the control device, whichever is later. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test according to § 63.11945 to determine destruction efficiency. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a