

(b) You must conduct a performance test when you want to change the parameter value for any operating limit specified in your OM&M plan.

(c) If you own or operate a source that is subject to the emission limits specified in items 2 through 9 of Table 1 to this subpart, you must conduct a performance test on the source(s) listed in paragraphs (c)(1) and (2) of this section before you start production of any refractory product for which the organic HAP processing rate is likely to exceed by more than 10 percent the maximum organic HAP processing rate established during the most recent performance test on that same source.

(1) Each affected shape dryer or curing oven that is used to process the refractory product with the higher organic HAP processing rate.

(2) Each affected kiln that follows an affected shape dryer or curing oven and is used to process the refractory product with the higher organic HAP processing rate.

(d) If you own or operate a kiln that is subject to the emission limits specified in item 5 or 9 of Table 1 to this subpart, you must conduct a performance test on the affected kiln following any process changes that are likely to increase organic HAP emissions from the kiln (*e.g.*, a decrease in the curing cycle time for a curing oven that precedes the affected kiln in the process line).

(e) If you own or operate a clay refractory products kiln that is subject to the emission limits specified in item 10 or 11 of Table 1 to this subpart and is controlled with a dry limestone adsorber (DLA), you must conduct a performance test on the affected kiln following any change in the source of limestone used in the DLA.

§ 63.9800 How do I conduct performance tests and establish operating limits?

(a) You must conduct each performance test in Table 4 to this subpart that applies to you.

(b) Before conducting the performance test, you must install and validate all monitoring equipment.

(c) Each performance test must be conducted according to the require-

ments in § 63.7 and under the specific conditions in Table 4 to this subpart.

(d) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(e) You must conduct separate test runs for at least the duration specified for each performance test required in this section, as specified in § 63.7(e)(3) and Table 4 to this subpart.

(f) For batch process sources, you must satisfy the requirements specified in paragraphs (f)(1) through (5) of this section.

(1) You must conduct at least two test runs.

(2) Each test run must last an entire batch cycle unless you develop an emissions profile, as specified in items 8(a)(i)(4) and 17(b)(i)(4) of Table 4 to this subpart, or you satisfy the conditions for terminating a test run prior to the completion of a batch cycle as specified in item 8(a)(i)(5) of Table 4 to this subpart.

(3) Each test run must be performed over a separate batch cycle unless you satisfy the conditions for conducting both test runs over a single batch cycle, as described in paragraphs (f)(3)(i) and (ii) of this section.

(i) You do not produce the product that corresponds to the maximum organic HAP processing rate for that batch process source in consecutive batch cycles.

(ii) To produce that product in two consecutive batch cycles would disrupt production of other refractory products.

(4) If you want to conduct a performance test over a single batch cycle, you must include in your Notification of Performance Test the rationale for testing over a single batch cycle.

(5) If you are granted approval to conduct a performance test over a single batch cycle, you must use paired sampling trains and collect two sets of emissions data. Each set of data can be considered a separate test run.

(g) You must use the data gathered during the performance test and the equations in paragraphs (g)(1) through (3) of this section to determine compliance with the emission limitations.

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(1) To determine compliance with the total hydrocarbon (THC) emission concentration limit listed in Table 1 to this subpart, you must calculate your emission concentration corrected to 18 percent oxygen for each test run using Equation 1 of this section:

$$C_{\text{THC-C}} = \frac{2.9 \times C_{\text{THC}}}{(20.9 - C_{\text{O}_2})} \quad (\text{Eq. 1})$$

Where:

- C_{THC-C}=THC concentration, corrected to 18 percent oxygen, parts per million by volume, dry basis (ppmvd)
- C_{THC}=THC concentration (uncorrected), ppmvd
- C_{O₂}=oxygen concentration, percent.

(2) To determine compliance with any of the emission limits based on percentage reduction across an emissions control system specified in Table 1 to this subpart, you must calculate the percentage reduction for each test run using Equation 2 of this section:

$$\text{PR} = \frac{\text{ER}_i - \text{ER}_o}{\text{ER}_i} \times 100 \quad (\text{Eq. 2})$$

Where:

- PR=percentage reduction, percent
- ER_i=mass emissions rate of specific HAP or pollutant (THC, HF, or HCl) entering the control device, kilograms (pounds) per hour
- ER_o=mass emissions rate of specific HAP or pollutant (THC, HF, or HCl) exiting the control device, kilograms (pounds) per hour.

(3) To determine compliance with production-based hydrogen fluoride (HF) and hydrogen chloride (HCl) emission limits in Table 1 to this subpart, you must calculate your mass emissions per unit of uncalcined clay processed for each test run using Equation 3 of this section:

$$\text{MP} = \frac{\text{ER}}{\text{P}} \quad (\text{Eq. 3})$$

Where:

- MP=mass per unit of production, kilograms of pollutant per megagram (pounds per ton) of uncalcined clay processed
- ER=mass emissions rate of specific HAP (HF or HCl) during each performance test run, kilograms (pounds) per hour
- P=average uncalcined clay processing rate for the performance test, megagrams (tons) of uncalcined clay processed per hour.

(h) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you, as specified in Table 4 to this subpart.

(i) For each affected source that is equipped with an add-on APCD that is not addressed in Table 2 to this subpart or that is using process changes as a means of meeting the emission limits in Table 1 to this subpart, you must meet the requirements in §63.8(f) and paragraphs (i)(1) through (3) of this section.

(1) For sources subject to the THC concentration limit specified in item 3 or 7 of Table 1 to this subpart, you must satisfy the requirements specified in paragraphs (i)(1)(i) through (iii) of this section.

(i) You must install a THC continuous emissions monitoring system (CEMS) at the outlet of the control device or in the stack of the affected source.

(ii) You must meet the requirements specified in Performance Specification (PS) 8 of 40 CFR part 60, appendix B.

(iii) You must meet the requirements specified in Procedure 1 of 40 CFR part 60, appendix F.

(2) For sources subject to the emission limits specified in item 3, 4, 7, or 8 of Table 1 to this subpart, you must submit a request for approval of alternative monitoring methods to the Administrator no later than the submittal date for the Notification of Performance Test, as specified in §63.9812(d). The request must contain the information specified in paragraphs (i)(2)(i) through (v) of this section.

(i) Description of the alternative add-on APCD or process changes.

(ii) Type of monitoring device or method that will be used, including the sensor type, location, inspection procedures, quality assurance and quality control measures, and data recording device.

(iii) Operating parameters that will be monitored.

(iv) Frequency that the operating parameter values will be determined and recorded to establish continuous compliance with the operating limits.

(v) Averaging time.

(3) You must establish site-specific operating limits during the performance test based on the information included in the approved alternative monitoring methods request and, as applicable, as specified in Table 4 to this subpart.

§ 63.9802 How do I develop an emissions profile?

If you decide to develop an emissions profile for an affected batch process source; as indicated in item 8(a)(i)(4) or 17(b)(i)(4) of Table 4 to this subpart, you must measure and record mass emissions of the applicable pollutant throughout a complete batch cycle of the affected batch process source according to the procedures described in paragraph (a) or (b) of this section.

(a) If your affected batch process source is subject to the THC concentration limit specified in item 6(a), 7(a), 8, or 9 of Table 1 to this subpart or the THC percentage reduction limit specified in item 6(b) or 7(b) of Table 1 to this subpart, you must measure and record the THC mass emissions rate at the inlet to the control device using the test methods, averaging periods, and procedures specified in items 10(a) and (b) of Table 4 to this subpart for each complete hour of the batch process cycle.

(b) If your affected batch process source is subject to the HF and HCl percentage reduction emission limits in item 11 of Table 1 to this subpart, you must measure and record the HF mass emissions rate at the inlet to the control device through a series of 1-hour test runs according to the test method specified in item 14(a) of Table 4 to this subpart for each complete hour of the batch process cycle.

§ 63.9804 What are my monitoring system installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each CPMS required by this subpart according to your OM&M plan and the requirements in paragraphs (a)(1) through (15) of this section.

(1) You must satisfy all applicable requirements of performance specifications for CPMS specified in 40 CFR part 60, appendix B, upon promulgation of such performance specifications.

(2) You must satisfy all applicable requirements of quality assurance (QA) procedures for CPMS specified in 40 CFR part 60, appendix F, upon promulgation of such QA procedures.

(3) You must install each sensor of your CPMS in a location that provides representative measurement of the appropriate parameter over all operating conditions, taking into account the manufacturer's guidelines.

(4) You must use a CPMS that is capable of measuring the appropriate parameter over a range that extends from a value of at least 20 percent less than the lowest value that you expect your CPMS to measure, to a value of at least 20 percent greater than the highest value that you expect your CPMS to measure.

(5) You must use a data acquisition and recording system that is capable of recording values over the entire range specified in paragraph (a)(4) of this section.

(6) You must use a signal conditioner, wiring, power supply, and data acquisition and recording system that are compatible with the output signal of the sensors used in your CPMS.

(7) You must perform an initial calibration of your CPMS based on the procedures specified in the manufacturer's owner's manual.

(8) You must use a CPMS that is designed to complete a minimum of one cycle of operation for each successive 15-minute period. To have a valid hour of data, you must have at least three of four equally-spaced data values (or at least 75 percent of the total number of values if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, or out-of-control periods).

(9) You must record valid data from at least 90 percent of the hours during which the affected source or process operates.

(10) You must determine and record the 15-minute block averages of all measurements, calculated after every 15 minutes of operation as the average of the previous 15 operating minutes (not including periods of startup, shutdown, or malfunction).

(11) You must determine and record the 3-hour block averages of all 15-