

**Environmental Protection Agency**

**§ 63.8450**

**§ 63.8445 How do I conduct performance tests and establish operating limits?**

(a) You must conduct each performance test in Table 3 to this subpart that applies to you.

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

(c) Each performance test must be conducted according to the requirements in §63.7 and under the specific conditions in Table 3 to this subpart.

(d) You must test while operating at the maximum production level.

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

(f) You must conduct at least three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(g) You must use the data gathered during the performance test and the equations in paragraphs (g)(1) and (2) of this section to determine compliance with the emission limitations.

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

$$MP = \frac{ER}{P} \quad (\text{Eq. 1})$$

Where:

MP=mass per unit of production, kilograms (pounds) of pollutant per megagram (ton) of fired product

ER=mass emission rate of pollutant (HF, HCl, or PM) during each performance test run, kilograms (pounds) per hour

P=production rate during each performance test run, megagrams (tons) of fired product per hour.

(2) To determine compliance with the percent reduction HF and HCl emission limits in Table 1 to this subpart, you must calculate the percent reduction for each test run using Equation 2 of this section:

$$PR = \frac{ER_i - ER_o}{ER_i} (100) \quad (\text{Eq. 2})$$

Where:

PR=percent reduction, percent

ER<sub>i</sub>=mass emission rate of specific HAP (HF or HCl) entering the APCD, kilograms (pounds) per hour

ER<sub>o</sub>=mass emission rate of specific HAP (HF or HCl) exiting the APCD, kilograms (pounds) 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 3 to this subpart.

(i) For each affected kiln that is equipped with an 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) and (2) of this section.

(1) Submit a request for approval of alternative monitoring procedures to the Administrator no later than the notification of intent to conduct a performance test. The request must contain the information specified in paragraphs (i)(1)(i) through (iv) of this section.

(i) A description of the alternative APCD or process changes.

(ii) The type of monitoring device or procedure that will be used.

(iii) The operating parameters that will be monitored.

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

(2) Establish site-specific operating limits during the performance test based on the information included in the approved alternative monitoring procedures request and, as applicable, as specified in Table 3 to this subpart.

**§ 63.8450 What are my monitoring installation, operation, and maintenance requirements?**

(a) You must install, operate, and maintain each CMS according to your OM&M plan and the requirements in paragraphs (a)(1) through (5) of this section.

(1) Conduct a performance evaluation of each CMS according to your OM&M plan.

(2) The CMS must 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 if you collect more than four data values per hour) for that hour (not including startup, shutdown, malfunction, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8420(e)).

(3) Determine and record the 3-hour block averages of all recorded readings, calculated after every 3 hours of operation as the average of the previous 3 operating hours. To calculate the average for each 3-hour average period, you must have at least 75 percent of the recorded readings for that period (not including startup, shutdown, malfunction, out-of-control periods, or periods of routine control device maintenance covered by a routine control device maintenance exemption as specified in § 63.8420(e)).

(4) Record the results of each inspection, calibration, and validation check.

(5) At all times, maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) For each liquid flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (b)(1) through (3) of this section.

(1) Locate the flow sensor in a position that provides a representative flowrate.

(2) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the liquid flowrate.

(3) At least semiannually, conduct a flow sensor calibration check.

(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (c)(1) through (7) of this section.

(1) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(4) Check the pressure tap daily to ensure that it is not plugged.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Any time the sensor exceeds the manufacturer's specified maximum operating pressure range, conduct calibration checks or install a new pressure sensor.

(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) For each pH measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (d)(1) through (4) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(4) At least monthly, inspect all components for integrity and all electrical connections for continuity.

(e) For each bag leak detection system, you must meet the requirements in paragraphs (e)(1) through (11) of this section.

(1) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (EPA-454/R-98-015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Continuous Emission

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Monitoring. Other types of bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(2) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(3) The bag leak detection system sensor must provide an output of relative PM loadings.

(4) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(5) The bag leak detection system must be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(6) For positive pressure fabric filter systems, a bag leak detector must be installed in each baghouse compartment or cell.

(7) For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."

(10) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted except as detailed in your OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Record each adjustment.

(11) Record the results of each inspection, calibration, and validation check.

(f) For each lime or chemical feed rate measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and paragraphs (f)(1) and (2) of this section.

(1) Locate the measurement device in a position that provides a representative feed rate measurement.

(2) At least semiannually, conduct a calibration check.

(g) For each limestone feed system on a DLA, you must meet the requirements in paragraphs (a)(1),(4), and (5) of this section and must ensure on a monthly basis that the feed system replaces limestone at least as frequently as the schedule set during the performance test.

(h) Requests for approval of alternate monitoring procedures must meet the requirements in §§ 63.8445(i) and 63.8(f).

### **§ 63.8455 How do I demonstrate initial compliance with the emission limitations?**

(a) You must demonstrate initial compliance with each emission limitation that applies to you according to Table 4 to this subpart.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in § 63.8445 and Table 3 to this subpart.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.8480(e).

### CONTINUOUS COMPLIANCE REQUIREMENTS

### **§ 63.8465 How do I monitor and collect data to demonstrate continuous compliance?**

(a) You must monitor and collect data according to this section.

(b) Except for periods of 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 continuously (or collect data at all required intervals) at all times that the affected source is operating. This includes periods of startup, shutdown,