

changed if an engineering evaluation is conducted and a determination made that the change in speed will not affect compliance with the emission limit.

(7) Develop and implement an inspection and maintenance plan for the concentrator(s) that you elect to monitor according to paragraph (f) of this section. The plan must include, at a minimum, annual sampling and analysis of the adsorbent material (*i.e.*, adsorbent activity) following the manufacturer's recommended procedures.

(g) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3544(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (g)(1) and (2) of this section. The operating limit for a PTE is specified in Table 4 to this subpart.

(1) During the capture efficiency determination required by § 63.3540 and described in §§ 63.3543 and 63.3544, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

**§ 63.3547 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally

spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraph (b)(1) or (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes.

The flow indicator shall be installed at the entrance to any bypass line.

(2) Secure the bypass line valve in the nondiverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position and the vent stream is not diverted through the bypass line.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section.

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor according to paragraph (c)(2)(i) or (ii) of this section.

(i) If you establish operating limits according to §63.3546(b)(1) and (2), then you must install the gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream at the inlet to and the outlet of the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to §63.3546(b)(3) and (4), then you must install a gas temperature monitor upstream of the catalyst bed. The temperature monitor must be in the gas stream at the inlet to the catalyst bed to measure the temperature.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (ii) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a minimum accuracy of  $\pm 1.2$  degrees Celsius or  $\pm 1$  percent of the temperature

value in degrees Celsius, whichever is larger.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having an accuracy of  $\pm 10$  percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a minimum accuracy of  $\pm 1.2$  degrees Celsius or  $\pm 1$  percent of the temperature value in degrees Celsius, whichever is larger, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a minimum accuracy of  $\pm 1$  percent of the temperature recorded in degrees Celsius or  $\pm 1.2$  degrees Celsius, whichever is greater.

(2) The temperature monitor must provide a continuous gas temperature record.

(f) *Concentrators.* If you are using a concentrator such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) through (4) of this section.

(1) You must install a temperature monitor at the inlet to the desorption/reactivation zone of the concentrator. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must select an indicator(s) of performance of the desorption/reactivation fan operation, such as speed, power, static pressure, or flow rate.

(3) You must monitor the rotational speed of the concentrator in revolutions per hour.

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(4) You must verify the performance of the adsorbent material by examining representative samples and testing adsorbent activity per the manufacturer's recommendations.

COMPLIANCE REQUIREMENTS FOR THE CONTROL EFFICIENCY/OUTLET CONCENTRATION OPTION

**§ 63.3550 By what date must I conduct performance tests and other initial compliance demonstrations?**

(a) *New and reconstructed affected sources.* For a new or reconstructed source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483. You must conduct a performance test of each capture system and add-on control device according to §§ 63.3553, 63.3554, and 63.3555 and establish the operating limits required by § 63.3492 no later than 180 days after the applicable compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3551. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3553, 63.3554, and 63.3555; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3557; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits on the date you complete the performance tests specified in paragraph (a)(1) of this section.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3551. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3553, 63.3554, and 63.3555; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3557; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.