efficiency) following the manufacturer’s or catalyst supplier’s recommended procedures.

(ii) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems and, as necessary, adjusting the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer’s recommendations and conduct a new performance test to determine destruction efficiency according to §63.4166.

(c) Carbon adsorbers. If your add-on control device is a carbon absorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon absorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) Condensers. If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet gas temperature. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) Concentrators. If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(f) Emission capture system. For each capture device that is not part of a PTE that meets the criteria of §63.4165(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by §63.4160 and described in §§63.4164 and 63.4165, 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) Use the data collected during the performance test to calculate and record the average condenser outlet gas temperature. This 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.

§ 63.4168 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 except as specified in paragraph (a)(6) of this section.

(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. Except for periods of required quality assurance or control activities, any period during which the CPMS fails to operate and record data continuously as required by paragraph (a)(1) of this section, or generates data that cannot be included in calculating averages as specified in paragraph (a)(6) of this section, is a deviation from the monitoring requirements.

(b) Capture system bypass line. You must comply with the requirements of paragraphs (a)(3) through (5) and (b)(1) and (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) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer’s specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) Valve closure monitoring. Ensure that any bypass line valve in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least.
once every month to verify that the
monitor will indicate valve position.

(iv) **Automatic shutdown system.** Use
an automatic shutdown system in
which the coating operation is stopped
when flow is diverted by the bypass
line away from the add-on control de-
vice to the atmosphere when the coat-
ing operation is running. You must in-
spect the automatic shutdown system
at least once every month to verify
that it will detect diversions of flow
and shutdown the coating operation.

(2) If any bypass line is opened, you
must include a description of why the
bypass line was opened and the length
of time it remained open in the semi-
annual compliance reports required in
§63.4120.

(c) **Thermal oxidizers and catalytic
oxidizers.** If you are using a thermal ox-
idizer or catalytic oxidizer as an add-on
control device (including those used
with concentrators or with carbon
adsorbers to treat desorbed con-
centrate streams), you must comply
with the requirements in paragraphs
(a) and (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 in the gas
stream immediately before the cata-
lyst bed, and if you establish operating
limits according to §63.6167(b)(1) and
(2), also install a gas temperature mon-
itor in the gas stream immediately
after the catalyst bed.

(3) For each gas temperature moni-
toring device, you must comply with
the requirements in paragraphs (c)(3)(i)
through (vii) of this section.

(i) Locate the temperature sensor in
a position that provides a representa-
tive temperature.

(ii) Use a temperature sensor with a
measurement sensitivity of 4 degrees
Fahrenheit or 0.75 percent of the tem-
perature value, whichever is larger.

(iii) Shield the temperature sensor
system from electromagnetic inter-
ference and chemical contaminants.

(iv) If a gas temperature chart re-
corder is used, it must have a measure-
ment sensitivity in the minor division
of at least 20 degrees Fahrenheit.

(v) Perform an electronic calibration
at least semiannually according to the
procedures in the manufacturer’s own-
ers manual. Following the electronic
calibration, you must conduct a tem-
perature sensor validation check in
which a second or redundant tempera-
ture sensor placed nearby the process
temperature sensor must yield a reading
within 30 degrees Fahrenheit of the
process temperature sensor’s reading.

(vi) Any time the sensor exceeds the
manufacturer’s specified maximum op-
erating temperature range, either con-
duct calibration and validation checks
or install a new temperature sensor.

(vii) At least monthly, inspect com-
ponents for integrity and electrical
connections for continuity, oxidation,
and galvanic corrosion.

(d) **Carbon adsorbers.** If you are using
a carbon adsorber as an add-on control
device, you must monitor the total re-
generation desorbing gas (e.g., steam
or nitrogen) mass flow for each regen-
eration cycle, the carbon bed tempera-
ture after each regeneration and cool-
ing 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 inte-
grating device having a measurement
sensitivity of plus or minus 10 percent,
capable of recording the total regen-
eration desorbing gas mass flow for
each regeneration cycle.

(2) The carbon bed tempera-
ture monitor must have a measurement sensi-
tivity of 1 percent of the temperature
recorded or 1 degree Fahrenheit, which-
ever is greater, 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 con-
denser, you must monitor the con-
denser outlet (product side) gas tem-
perature and comply with paragraphs
(a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor
must have a measurement sensitivity
of 1 percent of the temperature re-
corded or 1 degree Fahrenheit, which-
ever is greater.

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The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(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 (a) and (f)(1) and (2) of this section.

1. You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

2. You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

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

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

(iii) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(iv) Check the pressure tap daily.

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

(vi) Conduct calibration checks any time the sensor exceeds the manufacturer’s specified maximum operating pressure range or install a new pressure sensor.

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

(g) Emission capture systems. The capture system monitoring system must comply with the requirements in paragraph (a) of this section and the applicable requirements in paragraphs (g)(1) and (2) of this section.

1. For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

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

2. For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

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

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer’s specified maximum operating pressure range or install a new pressure sensor.

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

OTHER REQUIREMENTS AND INFORMATION

§ 63.4180 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of