

e-CFR Data is current as of October 16, 2017

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES
(CONTINUED)

Subpart PPTPP—National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands

SOURCE: 68 FR 28785, May 27, 2003, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.9280 What is the purpose of subpart PPTPP?

This subpart PPTPP establishes national emission standards for hazardous air pollutants (NESHAP) for engine test cells/stands located at major sources of hazardous air pollutants (HAP) emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations contained in this NESHAP.

§63.9285 Am I subject to this subpart?

You are subject to this subpart if you own or operate an engine test cell/stand that is located at a major source of HAP emissions.

(a) An engine test cell/stand is any apparatus used for testing uninstalled stationary or uninstalled mobile (motive) engines.

(b) An uninstalled engine is an engine that is not installed in, or an integrated part of, the final product.

(c) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

§63.9290 What parts of my plant does this subpart cover?

This subpart applies to each new, reconstructed, or existing affected source.

(a) *Affected source.* An affected source is the collection of all equipment and activities associated with engine test cells/stands used for testing uninstalled stationary or uninstalled mobile (motive) engines located at a major source of HAP emissions.

(1) *Existing affected source.* An affected source is existing if you commenced construction or reconstruction of the affected source on or before May 14, 2002. A change in ownership of an existing affected source does not make that affected source a new or reconstructed affected source.

(2) *New affected source.* An affected source is new if you commenced construction of the affected source after May 14, 2002.

(3) *Reconstructed affected source.* An affected source is reconstructed if you meet the definition of reconstruction in §63.2 of subpart A of this part and reconstruction is commenced after May 14, 2002. Changes made to an existing affected source primarily for the purpose of complying with revisions to engine testing requirements under 40 CFR parts 80, 86, 89, 90, 91, or 92 are not considered a modification or reconstruction. In addition, passive measurement and control instrumentation and electronics are not included as part of any affected source reconstruction evaluation.

(b) Existing affected sources do not have to meet the requirements of this subpart and of subpart A of this part.

(c) Any portion of a new or reconstructed affected source located at a major source that is used exclusively for testing internal combustion engines with rated power of less than 25 horsepower (hp) (19 kilowatts(kW)) does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.9345(b).

(d) Any portion of a new or reconstructed affected source located at a major source that meets any of the criteria specified in paragraphs (d)(1) through (4) of this section does not have to meet the requirements of this subpart and of subpart A of this part.

(1) Any portion of the affected source used exclusively for testing combustion turbine engines.

(2) Any portion of the affected source used exclusively for testing rocket engines.

(3) Any portion of the affected source used in research and teaching activities at facilities that are not engaged in the development of engines or engine test services for commercial purposes.

(4) Any portion of the affected source operated to test or evaluate fuels (such as knock engines), transmissions, or electronics.

§63.9295 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you start up your new or reconstructed affected source before May 27, 2003, you must comply with the emission limitations in this subpart no later than May 27, 2003.

(2) If you start up your new or reconstructed affected source on or after May 27, 2003, you must comply with the emission limitations in this subpart upon startup.

(b) *Area sources that become major sources.* If your new or reconstructed affected source is located at an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, your new or reconstructed affected source must be in compliance with this subpart when the area source becomes a major source.

(c) You must meet the notification requirements in §63.9345 and in 40 CFR part 63, subpart A.

EMISSION LIMITATIONS

§63.9300 What emission limitations must I meet?

For each new or reconstructed affected source that is used in whole or in part for testing internal combustion engines with rated power of 25 hp (19 kW) or more and that is located at a major source, you must comply with the emission limitations in Table 1 to this subpart. (Tables are found at the end of this subpart.)

§63.9301 What are my options for meeting the emission limits?

You may use either a continuous parameter monitoring system (CPMS) or a continuous emission monitoring system (CEMS) to demonstrate compliance with the emission limitations. Continuous monitoring systems must meet the requirements in §63.9306 (CPMS) and §63.9307 (CEMS).

§63.9302 What operating limits must I meet?

(a) For any new or reconstructed affected source on which you use add-on controls, you must meet the operating limits specified in Table 2 to this subpart. These operating limits must be established during the performance test according to the requirements in §63.9324. You must meet the operating limits at all times after you establish them.

(b) If you use an add-on control device other than those listed in Table 2 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

GENERAL COMPLIANCE REQUIREMENTS

§63.9305 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitation that applies to you at all times, except during periods of startup, shutdown, or malfunction (SSM) of your control device or associated monitoring equipment.

(b) If you must comply with the emission limitation, you must operate and maintain your engine test cell/stand, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times.

(c) You must develop a written SSM plan (SSMP) for emission control devices and associated monitoring equipment according to the provisions in §63.6(e)(3). The plan will apply only to emission control devices, and not to engine test cells/stands.

[68 FR 28785, May 27, 2003, as amended at 71 FR 20470, Apr. 20, 2006]

§63.9306 What are my continuous parameter monitoring system (CPMS) installation, operation, and maintenance requirements?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c) and (d) of this section according to paragraphs (a)(1) through (7) of this section. You must install, operate, and maintain each CPMS specified in paragraph (b) 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 an engine test cell/stand 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 paragraphs (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 is in the closed (nondiverting) 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 engine testing operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when an engine test cell/stand is operating. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the engine test cell/stand in 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 semiannual compliance reports required in §63.9350.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device, 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, you must install a gas temperature monitor in the gas stream immediately before the catalyst bed, and if you established operating limits according to §63.9324(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(i) If you establish operating limits according to §63.9324(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 immediately before and after the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to §63.9324(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 immediately before 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 (vii) 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 measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

(iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(iv) If a gas temperature chart recorder is used, it must have a measurement 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 owner's manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed near the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

(vi) Conduct calibration and validation checks anytime the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

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

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

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (d)(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 (d)(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.

§63.9307 What are my continuous emissions monitoring system installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each CEMS to monitor carbon monoxide (CO) or total hydrocarbons (THC) and oxygen (O₂) at the outlet of the exhaust system of the engine test cell/stand or at the outlet of the emission control device.

(b) To comply with the CO or THC percent reduction emission limitation, you may install, operate, and maintain a CEMS to monitor CO or THC and O₂ at both the inlet and the outlet of the emission control device.

(c) To comply with either emission limitations, the CEMS must be installed and operated according to the requirements described in paragraphs (c)(1) through (4) of this section.

(1) You must install, operate, and maintain each CEMS according to the applicable Performance Specification (PS) of 40 CFR part 60, appendix B (PS-3 or PS-4A).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to PS-3 of 40 CFR part 60, appendix B, using Reference Method 3A or 3B for the O₂ CEMS, and according to PS-4A of 40 CFR part 60, appendix B, using Reference Method 10 or 10B for the CO CEMS. If the fuel used in the engines being tested is natural gas, you may use ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide and Oxygen

Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (incorporated by reference, see §63.14). As an alternative to Method 3B, you may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," (incorporated by reference, see §63.14).

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, each representing a different 15-minute period within the same hour, to have a valid hour of data.

(4) All CEMS data must be reduced as specified in §63.8(g)(2) and recorded as CO concentration in parts per million by volume, dry basis (ppmvd), corrected to 15 percent O₂ content.

(d) If you have CEMS that are subject to paragraph (a) or (b) of this section, you must properly maintain and operate the monitors continuously according to the requirements described in paragraphs (d)(1) and (2) of this section.

(1) *Proper maintenance.* You must maintain the monitoring equipment at all times that the engine test cell/stand is operating, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(2) *Continued operation.* You must operate your CEMS according to paragraphs (d)(2)(i) and (ii) of this section.

(i) You must conduct all monitoring in continuous operation at all times that the engine test cell/stand is operating, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration drift checks and required zero and high-level adjustments). Quality assurance or control activities must be performed according to procedure 1 of 40 CFR part 60, appendix F.

(ii) Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, and required quality assurance or control activities must not be used for purposes of calculating data averages. You must use all of the data collected from all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring equipment 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 constitutes a deviation from the monitoring requirements.

TESTING AND INITIAL COMPLIANCE REQUIREMENTS

§63.9310 By what date must I conduct the initial compliance demonstrations?

You must conduct the initial compliance demonstrations that apply to you in Table 3 to this subpart within 180 calendar days after the compliance date that is specified for your new or reconstructed affected source in §63.9295 and according to the provisions in §63.7(a)(2).

§63.9320 What procedures must I use?

(a) You must conduct each initial compliance demonstration that applies to you in Table 3 to this subpart.

(b) You must conduct an initial performance evaluation of each capture and control system according to §§63.9321, 63.9322, 63.9323 and 63.9324, and each CEMS according to the requirements

in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B (PS-3 or PS-4A).

(c) The initial demonstration of compliance with the carbon monoxide (CO) or total hydrocarbon (THC) concentration limitation consists of the first 4-hour rolling average CO or THC concentration recorded after completion of the CEMS performance evaluation. You must correct the CO or THC concentration at the outlet of the engine test cell/stand or the emission control device to a dry basis and to 15 percent O₂ content according to Equation 1 of this section:

$$C_c = C_{unc} \left(\frac{5.9}{(20.9 - \%O_{2d})} \right) \quad (\text{Eq. 1})$$

Where:

C_c = concentration of CO or THC, corrected to 15 percent oxygen, ppmvd

C_{unc} = total uncorrected concentration of CO or THC, ppmvd

%O_{2d} = concentration of oxygen measured in gas stream, dry basis, percent by volume.

(d) The initial demonstration of compliance with the CO or THC percent reduction emission limitation consists of the first 4-hour rolling average percent reduction in CO or THC recorded after completion of the performance evaluation of the capture/control system and/or CEMS. You must complete the actions described in paragraphs (d)(1) through (2) of this section.

(1) Correct the CO or THC concentrations at the inlet and outlet of the emission control device to a dry basis and to 15 percent O₂ content using Equation 1 of this section.

(2) Calculate the percent reduction in CO or THC using Equation 2 of this section:

$$R = \frac{C_i - C_o}{C_i} \times 100 \quad (\text{Eq. 2})$$

Where:

R = percent reduction in CO or THC

C_i = corrected CO or THC concentration at inlet of the emission control device

C_o = corrected CO or THC concentration at the outlet of the emission control device.

§63.9321 What are the general requirements for performance tests?

(a) You must conduct each performance test required by §63.9310 according to the requirements in §63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

(1) *Representative engine testing conditions.* You must conduct the performance test under representative operating conditions for the test cell/stand. Operations during periods of SSM, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.9322. You must conduct each performance test of an add-on control device according to the requirements in §63.9323.

§63.9322 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.9310.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a potential to emit (PTE) and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All engine test operations creating exhaust gases for which the test is applicable are conducted within the capture system.

(b) *Measuring capture efficiency.* If the capture system does not meet the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the two protocols described in paragraphs (c) and (d) of this section to measure capture efficiency. The capture efficiency measurements use total volatile hydrocarbon (TVH) capture efficiency as a surrogate for organic HAP capture efficiency. For the protocol in paragraph (c) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours in duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single engine test to go from the beginning to the end.

(c) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the engine test cell/stand and all areas where emissions from the engine testing subsequently occur. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C of appendix M to 40 CFR part 51 measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the engine test cell/stand operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 1 of this section:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 1})$$

Where:

CE = capture efficiency of the emission capture system vented to the add-on control device, percent

TVH_{captured} = total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg, determined according to paragraph (c)(2) of this section

$TVH_{\text{uncaptured}}$ = total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg, determined according to paragraph (c)(3) of this section.

(5) Determine the capture efficiency the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Alternative capture efficiency protocol.* As an alternative to the procedure specified in paragraph (c) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the data quality objective or lower control limit approach as described in appendix A to subpart KK of this part.

§63.9323 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.9310. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. The ANSI/ASME PTC 19.10-1981 Part 10 is an acceptable alternative to Method 3B (incorporated by reference, see §63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60, to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer, and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million at the control device outlet.

(2) Use Method 25A of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer, and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(c) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_t = Q_{sd} C_c (12)(0.0416)(10^{-6}) \quad (\text{Eq. 1})$$

Where:

M_t = total gaseous organic emissions mass flow rate, kg/hour (kg/h)

C_c = concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis

Q_{sd} = volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h)

0.0416 = conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin [K] and 760 millimeters of mercury [mmHg]).

(d) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$\text{DRE} = 100 \times \frac{M_{\text{fi}} - M_{\text{fo}}}{M_{\text{fi}}} \quad (\text{Eq. 2})$$

Where:

DRE = organic emissions destruction or removal efficiency of the add-on control device, percent

M_{fi} = total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h

M_{fo} = total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(e) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§63.9324 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by §63.9310, you must establish the operating limits required by §63.9302 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.9302.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed 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 temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to

calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (i.e., conversion 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, adjust 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 recommendation and conduct a new performance test to determine destruction efficiency according to §63.9323.

(c) *Emission capture system.* For each capture device that is not part of a PTE that meets the criteria of §63.9322(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (c)(1) and (2) of this section. The operating limit for a PTE is specified in Table 3 to this subpart.

(1) During the capture efficiency determination required by §63.9310, 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.

§63.9330 How do I demonstrate initial compliance with the emission limitation?

(a) You must demonstrate initial compliance with the emission limitation that applies to you according to Table 3 to this subpart.

(b) You must submit the Notification of Compliance Status containing results of the initial compliance demonstration according to the requirements in §63.9345(c).

CONTINUOUS COMPLIANCE REQUIREMENTS

§63.9335 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration drift checks and required zero and high-level adjustments of the monitoring system), you must conduct all monitoring in continuous operation at all times the engine test cell/stand is operating.

(b) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing the

performance of the emission control device or in assessing emissions from the new or reconstructed affected source.

§63.9340 How do I demonstrate continuous compliance with the emission limitations?

(a) You must demonstrate continuous compliance with the emission limitation in Table 1 to this subpart that applies to you according to methods specified in Table 5 to this subpart.

(b) You must report each instance in paragraphs (b)(1) and (2) of this section. These instances are deviations from the emission limitation in this subpart and must be reported according to the requirements in §63.9350.

(1) You must report each instance in which you did not meet the emission limitation that applies to you.

(2) You must report each instance in which you did not meet the requirements in Table 7 to this subpart that apply to you.

(c) *Startups, shutdowns, and malfunctions.* (1) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of SSM of control devices and associated monitoring equipment are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).

(2) The Administrator will determine whether deviations that occur during a period of SSM of control devices and associated monitoring equipment are violations, according to the provisions in §63.6(e).

[68 FR 28785, May 27, 2003, as amended at 71 FR 20470, Apr. 20, 2006]

NOTIFICATIONS, REPORTS, AND RECORDS

§63.9345 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.8(e), 63.8(f)(4) and (6), and 63.9(b), (g)(1), (g)(2) and (h) that apply to you by the dates specified.

(b) If you own or operate a new or reconstructed test cell/stand used for testing internal combustion engines, you are required to submit an Initial Notification as specified in paragraphs (b)(1) through (3) of this section.

(1) As specified in §63.9(b)(2), if you start up your new or reconstructed affected source before the effective date of this subpart, you must submit an Initial Notification not later than 120 calendar days after May 27, 2003.

(2) As specified in §63.9(b), if you start up your new or reconstructed affected source on or after the effective date of this subpart, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(3) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.9290(c), your notification should include the information in §63.9(b)(2)(i) through (v) and a statement that your new or reconstructed engine test cell/stand has no additional requirements and explain the basis of the exclusion (for example, that the test cell/stand is used exclusively for testing internal combustion engines with rated power of less than 25 hp (19 kW)).

(c) If you are required to comply with the emission limitations in Table 1 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For each initial compliance demonstration with the emission limitation, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(d) You must submit a notification of initial performance evaluation of your CEMS or performance testing of your control device at least 60 calendar days before the performance testing/evaluation is scheduled to begin as required in §63.8(e)(2).

§63.9350 What reports must I submit and when?

(a) If you own or operate a new or reconstructed affected source that must meet the emission limitation, you must submit a semiannual compliance report according to Table 6 to this subpart by the applicable dates specified in paragraphs (a)(1) through (6) of this section, unless the Administrator has approved a different schedule.

(1) The first semiannual compliance report must cover the period beginning on the compliance date specified in §63.9295 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date specified in §63.9295.

(2) The first semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in §63.9295.

(3) Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each new or reconstructed engine test cell/stand that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established the date for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (a)(1) through (4) of this section.

(6) If you had an SSM of a control device or associated monitoring equipment during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in paragraphs §63.10(d)(5)(i).

(b) If there is no deviation from the applicable emission limitation and the CEMS or CPMS was not out-of-control, according to §63.8(c)(7), the semiannual compliance report must contain the information described in paragraphs (b)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) A statement that no deviation from the emission limit occurred during the reporting period and that no CEMS or CPMS was out-of-control, according to §63.8(c)(7).

(c) For each deviation from an emission limit, the semiannual compliance report must include the information in paragraphs (b)(1) through (3) of this section and the information included in paragraphs (c)(1) through (4) of this section.

(1) The date and time that each deviation started and stopped.

(2) The total operating time of each new or reconstructed engine test cell/stand during the reporting period.

(3) A summary of the total duration of the deviation during the reporting period (recorded in 4-hour periods), and the total duration as a percent of the total operating time during that reporting period.

(4) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(d) For each CEMS or CPMS deviation, the semiannual compliance report must include the information in paragraphs (b)(1) through (3) of this section and the information included in paragraphs (d)(1) through (10) of this section.

(1) The date and time that each CEMS or CPMS was inoperative except for zero (low-level) and high-level checks.

(2) The date and time that each CEMS or CPMS was out-of-control including the information in §63.8(c)(8).

(3) A summary of the total duration of CEMS or CPMS downtime during the reporting period (reported in 4-hour periods), and the total duration of CEMS or CPMS downtime as a percent of the total engine test cell/stand operating time during that reporting period.

(4) A breakdown of the total duration of CEMS or CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes and other unknown causes.

(5) The monitoring equipment manufacturer(s) and model number(s) of each monitor.

(6) The date of the latest CEMS or CPMS certification or audit.

(7) The date and time period of each deviation from an operating limit in Table 2 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of SSM or during another period.

(8) A summary of the total duration of each deviation from an operating limit in Table 2 to this subpart, each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(9) A breakdown of the total duration of the deviations from the operating limits in Table 2 to this subpart and bypasses of the add-on control device during the semiannual reporting period by identifying deviations due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(10) A description of any changes in CEMS, CPMS, or controls since the last reporting period.

(e) If you had an SSM of a control device or associated monitoring equipment during the semiannual reporting period that was not consistent with your SSMP, you must submit an immediate SSM report according to the requirements in §63.10(d)(5)(ii).

§63.9355 What records must I keep?

(a) You must keep the records as described in paragraphs (a)(1) through (5) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) Records of performance evaluations as required in §63.10(b)(2)(viii).

(3) Records of the occurrence and duration of each malfunction of the air pollution control equipment, if applicable, as required in §63.10(b)(2)(ii).

(4) Records of all maintenance on the air pollution control equipment, if applicable, as required in §63.10(b)(iii).

(5) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices.

(b) For each CPMS, you must keep the records as described in paragraphs (b)(1) through (7) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of SSM of the control device and associated monitoring equipment.

(2) The records in §63.6(e)(3)(iii) through (v) related to SSM.

(3) The records required to show continuous compliance with each operating limit specified in Table 2 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in §63.9322(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§63.9321 and 63.9322(b) through (e), including the records specified in paragraphs (b)(5)(i) and (ii) of this section that apply to you.

(i) Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure. Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) Records for an alternative protocol. Records needed to document a capture efficiency determination using an alternative method or protocol as specified in §63.9322(e), if applicable.

(6) The records specified in paragraphs (b)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.9323.

(i) Records of each add-on control device performance test conducted according to §§63.9321, 63.9322, and 63.9323.

(ii) Records of the engine testing conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.9324 and to document compliance with the operating limits as specified in Table 2 to this subpart.

(c) For each CEMS, you must keep the records as described in paragraphs (c)(1) through (4) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (i.e., superceded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Request for alternatives to the relative accuracy test for CEMS as required in §63.8(f)(6)(i), if applicable.

(4) The records in §63.6(e)(3)(iii) through (v) related to SSM of the control device and associated monitoring equipment.

(d) You must keep the records required in Table 5 to this subpart to show continuous compliance with each emission limitation that applies to you.

§63.9360 In what form and how long must I keep my records?

(a) You must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each records for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must retain your records of the most recent 2 years on site, or your records must be accessible on site. Your records of the remaining 3 years may be retained off site.

OTHER REQUIREMENTS AND INFORMATION

§63.9365 What parts of the General Provisions apply to me?

Table 7 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§63.9370 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. 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 section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are described in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the emission limitations in §63.9300 under §63.6(g).

(2) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§63.9375 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA; in 40 CFR 63.2, and in this section:

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Statute 2399).

Area source means any stationary source of HAP that is not a major source as defined in this part.

Combustion turbine engine means a device in which air is compressed in a compressor, enters a combustion chamber, and is compressed further by the combustion of fuel injected into the combustion chamber. The hot compressed combustion gases then expand over a series of curved vanes or blades arranged on a central spindle that rotates.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitations;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

Engine means any internal combustion engine, any combustion turbine engine, or any rocket engine.

Engine Test Cell/Stand means any apparatus used for testing uninstalled stationary or uninstalled mobile (motive) engines.

Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to section 112(b) of the CAA.

Internal combustion engine means a device in which air enters a combustion chamber, is mixed with fuel, compressed in the chamber, and combusted. Fuel may enter the combustion chamber with the air or be injected into the combustion chamber. Expansion of the hot combustion gases in the chamber rotates a shaft, either through a reciprocating or rotary action. For purposes of this subpart, this definition does not include combustion turbine engines.

Major source, as used in this subpart, shall have the same meaning as in §63.2.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Rated power means the maximum power output of an engine in use.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Responsible official means responsible official as defined by 40 CFR 70.2.

Rocket engine means a device consisting of a combustion chamber in which materials referred to as propellants, which provide both the fuel and the oxygen for combustion, are burned. Combustion gases escape through a nozzle, providing thrust.

Uninstalled engine means an engine not installed in, or an integrated part of, the final product.

[68 FR 28785, May 27, 2003, as amended at 71 FR 20470, Apr. 20, 2006]

Table 1 to Subpart P of Part 63—Emission Limitations

You must comply with the emission limits that apply to your affected source in the following table as required by §63.9300.

For each new or reconstructed affected source located at a major source facility that is used in whole or in part for testing . . .	You must meet one of the following emission limitations:
1. internal combustion engines with rated power of 25 hp (19 kW) or more	a. limit the concentration of CO or THC to 20 ppmvd or less (corrected to 15 percent O ₂ content); or b. achieve a reduction in CO or THC of 96 percent or more between the inlet and outlet concentrations

	(corrected to 15 percent O ₂ content) of the emission control device.
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Table 2 to Subpart P P P P of Part 63—Operating Limits

If you are required to comply with operating limits in §63.9302, you must comply with the applicable operating limits in the following table:

For the following device . . .	You must meet the following operating limit . . .	and you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.9324(a)	i. Collecting the combustion temperature data according to §63.9306(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.9324(b)	i. Collecting the temperature data according to §63.9306(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. Either ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.9324(b)(2) or develop and implement an inspection and maintenance plan according to §63.9324(b)(3) and (4)	i. Either collecting the temperature data according to §63.9306(c), reducing the data to 3-hour block averages, and maintaining the 3-hour average temperature difference at or above the temperature difference limit; or ii. Complying with the inspection and maintenance plan developed according to §63.9324(b)(3) and (4).
3. Emission capture system that is a PTE according to §63.9322(a)	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow; and either the facial velocity of air through all natural draft openings according to §63.9306(d)(1) or the pressure drop across the enclosure according to §63.9306(d)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.

	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	Follow the requirements in 3ai and ii of this table.
	c. The pressure drop across the enclosure must be at least 0.007 inch H ₂ O, as established in Method 204 of appendix M to 40 CFR part 51	Follow the requirements in 3ai and ii of this table.
4. Emission capture system that is not a PTE according to §63.9322(a)	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according §63.9306(d)	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.9306(d); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

Table 3 to Subpart P of Part 63—Requirements for Initial Compliance Demonstrations

As stated in §63.9321, you must demonstrate initial compliance with each emission limitation that applies to you according to the following table:

For each new or reconstructed affected source complying with . . .	You must . . .	Using . . .	According to the following requirements . . .
1. The CO or THC outlet concentration emission limitation	a. Demonstrate CO or THC emissions are 20 ppmvd or less	i. EPA Methods 3A and 10 of appendix A to 40 CFR part 60 for CO measurement or EPA Method 25A of appendix A to 40 CFR part 60 for THC measurement; or	You must demonstrate that the outlet concentration of CO or THC emissions from the test cell/stand or emission control device is 20 ppmvd or less, corrected to 15 percent O ₂ content, using the first 4-hour rolling average after a successful performance evaluation.
		ii. A CEMS for CO or THC and O ₂ at the outlet of the engine test cell/stand or emission control device	This demonstration is conducted immediately following a successful performance evaluation of the CEMS as required in §63.9320(b). The demonstration consists of the first 4-hour rolling average of measurements. The CO or THC concentration must be corrected to 15 percent O ₂ content, dry basis using Equation 1 in §63.9320.
2. The CO or THC percent reduction emission limitation	a. Demonstrate a reduction in CO or THC of	i. You must conduct an initial performance test to determine the capture and control efficiencies of the	You must demonstrate that the reduction in CO or THC emissions is at least 96 percent using the first 4-hour rolling average after a successful performance

	96 percent or more	equipment and to establish operating limits to be achieved on a continuous basis; or	evaluation. Your inlet and outlet measurements must be on a dry basis and corrected to 15 percent O ₂ content.
		ii. A CEMS for CO or THC and O ₂ at both the inlet and outlet of the emission control device	This demonstration is conducted immediately following a successful performance evaluation of the CEMS as required in §63.9320(b). The demonstration consists of the first 4-hour rolling average of measurements. The inlet and outlet CO or THC concentrations must be corrected to 15 percent O ₂ content using Equation 1 in §63.9320. The reduction in CO or THC is calculated using Equation 2 in §63.9320.

Table 4 to Subpart P of Part 63—Initial Compliance With Emission Limitations

As stated in §63.9330, you must demonstrate initial compliance with each emission limitation that applies to you according to the following table:

For the . . .	You have demonstrated initial compliance if . . .
1. CO or THC concentration emission limitation	The first 4-hour rolling average CO or THC concentration is 20 ppmvd or less, corrected to 15 percent O ₂ content.
2. CO or THC percent reduction emission limitation	The first 4-hour rolling average reduction in CO or THC is 96 percent or more, dry basis, corrected to 15 percent O ₂ content.

Table 5 to Subpart P of Part 63—Continuous Compliance With Emission Limitations

As stated in §63.9340, you must demonstrate continuous compliance with each emission limitation that applies to you according to the following table:

For the . . .	You must . . .	By . . .
1. CO or THC concentration emission limitation	a. Demonstrate CO or THC emissions are 20 ppmvd or less over each 4-hour rolling averaging period	i. Collecting the CPMS data according to §63.9306(a), reducing the measurements to 1-hour averages; or ii. Collecting the CEMS data according to §63.9307(a), reducing the measurements to 1-hour averages, correcting them to 15 percent O ₂ content, dry basis, according to §63.9320;
2. CO or THC percent reduction emission limitation	a. Demonstrate a reduction in CO or THC of 96 percent or more over each 4-hour rolling averaging period	i. Collecting the CPMS data according to §63.9306(a), reducing the measurements to 1-hour averages; or ii. Collecting the CEMS data according to §63.9307(b), reducing the measurements to 1-hour averages, correcting them to 15 percent O ₂ content,

		dry basis, calculating the CO or THC percent reduction according to §63.9320.
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Table 6 to Subpart P P P P P of Part 63—Requirements for Reports

As stated in §63.9350, you must submit each report that applies to you according to the following table:

If you own or operate a new or reconstructed affected source that must comply with emission limitations, you must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from the emission limitations that apply to you, a statement that there were no deviations from the emission limitations during the reporting period	Semiannually, according to the requirements in §63.9350.
	b. If there were no periods during which the CEMS or CPMS were out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CEMS or CPMS was out of control during the reporting period	Semiannually, according to the requirements in §63.9350.
	c. If you have a deviation from any emission limitation during the reporting period, the report must contain the information in §63.9350(c)	Semiannually, according to the requirements in §63.9350.
	d. If there were periods during which the CEMS or CPMS were out of control, as specified in §63.8(c)(7), that report must contain the information in §63.9350(d)	Semiannually, according to the requirements in §63.9350.
	e. If you had an SSM of a control device or associated monitoring equipment during the reporting period, the report must include the information in §63.10(d)(5)(i)	Semiannually, according to the requirements in §63.9350.

Table 7 to Subpart P P P P P of Part 63—Applicability of General Provisions to Subpart P P P P P

As stated in 63.9365, you must comply with the General Provisions in §§63.1 through 63.15 that apply to you according to the following table:

Citation	Subject	Brief description	Applies to subpart P P P P P
§63.1(a)(1)	Applicability	General applicability of the General Provisions	Yes. Additional terms defined in §63.9375.

§63.1(a)(2)-(4)	Applicability	Applicability of source categories	Yes.
§63.1(a)(5)	[Reserved]		
§63.1(a)(6)-(7)	Applicability	Contact for source category information; extension of compliance through early reduction	Yes.
§63.1(a)(8)	Applicability	Establishment of State rules or programs	No. Refers to State programs.
§63.1(a)(9)	[Reserved]		
§63.1(a)(10)-(14)	Applicability	Explanation of time periods, postmark deadlines	Yes.
§63.1(b)(1)	Applicability	Initial applicability	Yes. Subpart P P P P P clarifies applicability at §63.9285.
§63.1(b)(2)	Applicability	Title V operating permit-reference to part 70	Yes. All major affected sources are required to obtain a Title V permit.
§63.1(b)(3)	Applicability	Record of applicability determination	Yes.
§63.1(c)(1)	Applicability	Applicability after standards are set	Yes. Subpart P P P P P clarifies the applicability of each paragraph of subpart A to sources subject to subpart P P P P P.
§63.1(c)(2)	Applicability	Title V permit requirement for area sources	No. Area sources are not subject to subpart P P P P P.
§63.1(c)(3)	[Reserved]		
§63.1(c)(4)	Applicability	Extension of compliance for existing sources	No. Existing sources are not covered by the substantive control requirements of subpart P P P P P.
§63.1(c)(5)	Applicability	Notification requirements for an area source becoming a major source	Yes.
§63.1(d)	[Reserved]		
§63.1(e)	Applicability	Applicability of permit program before a relevant standard has been set	Yes.
§63.2	Definitions	Definitions for Part 63 standards	Yes. Additional definitions are specified in §63.9375.

§63.3	Units and Abbreviations	Units and abbreviations for Part 63 standards	Yes.
§63.4	Prohibited Activities	Prohibited activities; compliance date; circumvention, severability	Yes.
§63.5(a)	Construction/Reconstruction	Construction and reconstruction—applicability	Yes.
§63.5(b)(1)	Construction/Reconstruction	Requirements upon construction or reconstruction	Yes.
§63.5(b)(2)	[Reserved].		
§63.5(b)(3)	Construction/Reconstruction	Approval of construction	Yes.
§63.5(b)(4)	Construction/Reconstruction	Notification of construction	Yes.
§63.5(b)(5)	Construction/Reconstruction	Compliance	Yes.
§63.5(b)(6)	Construction/Reconstruction	Addition of equipment	Yes.
§63.5(c)	[Reserved]		
§63.5(d)	Construction/Reconstruction	Application for construction reconstruction	Yes.
§63.5(e)	Construction/Reconstruction	Approval of construction or reconstruction	Yes.
§63.5(f)	Construction/Reconstruction	Approval of construction or reconstruction based on prior State review	Yes.
§63.6(a)	Applicability	Applicability of standards and monitoring requirements	Yes.
§63.6(b)(1)-(2)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f)	Yes.
§63.6(b)(3)	Compliance Dates for New and Reconstructed Sources	Compliance dates for sources constructed or reconstructed before effective date	No. Compliance is required by startup or effective date.
§63.6(b)(4)	Compliance Dates for New and Reconstructed Sources	Compliance dates for sources also subject to §112(f) standards	Yes.
§63.6(b)(5)	Compliance Dates for New and Reconstructed Sources	Notification	Yes.
§63.6(b)(6)	[Reserved].		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Sources	Compliance dates for new and reconstructed area sources that become major	Yes.

§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Effective date establishes compliance date	No. Existing sources are not covered by the substantive control requirements of subpart P P P P P.
§63.6(c)(3)-(4)	[Reserved].		
§63.6(c)(5)	Compliance Dates for Existing Sources	Compliance dates for existing area sources that becomes major	Yes. If the area source become a major source by addition or reconstruction, the added or reconstructed portion will be subject to subpart P P P P P.
§63.6(d)	[Reserved].		
§63.6(e)(1)-(2)	Operation and Maintenance Requirements	Operation and maintenance	Yes. Except that you are not required to have an SSMP for control devices and associated monitoring equipment.
§63.6(e)(3)	SSMP	1. Requirement for SSM and SSMP 2. Content of SSMP.	Yes. You must develop an SSMP for each control device and associated monitoring equipment.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM of control devices or associated monitoring equipment	Yes, but you must comply with emission standards at all times except during SSM of control devices and associated monitoring equipment only.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)	Opacity/Visible Emission (VE) Standards	Requirements for opacity/VE standards	No. Subpart P P P P P does not establish opacity/VE standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	No. Compliance extension provisions apply to existing sources, which do not have emission

			limitations in subpart PPPPP.
§63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule	Yes.
§63.7(a)(1)-(2)	Performance Test Dates	Dates for conducting initial performance testing and other compliance demonstrations: Must conduct within 180 days after first subject to rule	Yes.
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time	Yes.
§63.7(b)(1)	Notification Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Rescheduling	If have to reschedule performance test, must notify Administrator 5 days before schedule date of rescheduled date	Yes.
§63.7(c)	Quality Assurance/Test Plan	1. Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with	Yes.
		2. Test plan approval procedures	Yes.
		3. Performance audit requirements	Yes.
		4. Internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM; not a violation to exceed standard during SSM	Yes.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	1. Must have three test runs of at least 1 hour each	Yes.

		2. Compliance is based on arithmetic mean of three runs	Yes.
		3. Conditions when data from an additional test run can be used	Yes.
§63.7(e)(4)	Other Performance Testing	Administrator may require other testing under section 114 of the CAA	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method	Yes.
§63.7(g)	Performance Test Data Analysis	1. Must include raw data in performance test report	Yes.
		2. Must submit performance test data 60 days after end of test with the Notification of Compliance Status	Yes.
		3. Keep data for 5 years	Yes.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes. Subpart P P P P P contains specific requirements for monitoring at §63.9325.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply	Yes.
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in 63.11 apply	No. Subpart P P P P P does not have monitoring requirements for flares.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	1. Specific requirements for installing monitoring systems	Yes.
		2. Must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise	Yes.
		3. If more than one monitoring system on an emission point,	Yes.

		must report all monitoring system results, unless one monitoring system is a backup	
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes.
§63.8(c)(1)(i)	Routine and predictable CMS malfunctions	1. Keep parts for routine repairs of CMS readily available 2. Reporting requirements for SSM when action is described in SSMP	Yes.
		3. Reporting requirements for SSM when action is described in SSMP	Yes.
§63.8(c)(1)(ii)	SSM of CMS Not in SSMP	Reporting requirements for SSM of CMS when action is not described in SSMP	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	1. How Administrator determines if source complying with operation and maintenance requirements 2. Review of source O&M procedures, records, manufacturer's instructions and recommendations, and inspection	Yes.
§63.8(c)(2)-(3)	Monitoring System Installation	1. Must install to get representative emission of parameter measurements	Yes.
		2. Must verify operational status before or at performance test	Yes.
§63.8(c)(4)	Continuous Monitoring System (CMS) Requirements	1. CMS must be operating except during breakdown, out of control, repair, maintenance, and high-level calibration drifts	No. Follow specific requirements in §63.9335(a) and (b) of subpart P P P P P.
		2. COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period	No. Follow specific requirements in §63.9335(a) and (b) of subpart P P P P.
		3. CEMS must have a minimum of one cycle of	No. Follow specific requirements in

		operation for each successive 15-minute period	§63.9335(a) and (b) of subpart P P P P P.
§63.8(c)(5)	COMS Minimum Procedures	COMS minimum procedures	No. Subpart P P P P P does not have opacity/VE standards.
§63.8(c)(6)-(8)	CMS Requirements	Zero and high-level calibration check requirements, out-of-control periods	Yes. Except that P P P P does not require COMS.
§63.8(d)	CMS Quality Control	1. Requirements for CMS quality control, including calibration, etc	Yes.
		2. Must keep quality control plan on record for 5 years. Keep old versions for 5 years after revisions	Yes.
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes. Except for §63.8(e)(5)(ii), which applies to COMS.
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes.
§63.8(g)	Data Reduction	1. COMS 6-minute averages calculated over at least 36 evenly spaced data points 2. CEMS 1-hour averages computed over at least 4 equally spaced data points	Yes. Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §63.9340.
§63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for CEMS and COMS	No. Specific language is located at §63.9335(a).
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)-(5)	Initial Notifications	1. Submit notification subject 120 days after effective date	Yes.
		2. Notification of intent to construct/ reconstruct; notification of commencement of construct/ reconstruct; notification of startup	Yes.
		3. Contents of each	Yes.

§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER	No. Compliance extensions do not apply to new or reconstructed sources.
§63.9(d)	Notification of Special Compliance Requirements for New Source	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	No. Subpart PPTTTT does not require performance testing.
§63.9(f)	Notification of Opacity/VE Test	Notify Administrator 30 days prior	No. Subpart PPTTTT does not have opacity/VE standards.
§63.9(g)(1)	Additional Notifications when Using CMS	Notification of performance evaluation	Yes.
§63.9(g)(2)	Additional Notifications when Using CMS	Notification of use of COMS data	No. Subpart PPTTTT does not contain opacity or VE standards.
§63.9(g)(3)	Additional Notifications when Using CMS	Notification that exceeded criterion for relative accuracy	Yes. If alternative is in use.
§63.9(h)(1)-(6)	Notification of Compliance Status	1. Contents	Yes.
		2. Due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after	Yes.
		3. When to submit to Federal vs. State authority	Yes.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Recordkeeping/Reporting	1. Applies to all, unless compliance extension	Yes.
		2. When to submit to Federal vs. State authority	Yes.
		3. Procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	1. General requirements	Yes.

		2. Keep all records readily available	Yes.
		3. Keep for 5 years	Yes.
§63.10(b)(2)(i)-(v)	Records Related to SSM	1. Occurrence of each of operation (process equipment)	Yes.
		2. Occurrence of each malfunction of air pollution equipment	Yes.
		3. Maintenance on air pollution control equipment	Yes.
		4. Actions during SSM	Yes.
		5. All information necessary to demonstrate conformance with the SSMP	Yes.
§63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out of control	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)(1)-(6), (9)-(15)	Records	Additional records for CEMS	Yes.
§63.10(c)(7)-(8)	Records	Records of excess emissions and parameter monitoring exceedances for CMS	No. Specific language is located at §63.9355 of subpart PPPPP.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No. Subpart PPPPP does not have opacity/VE standards.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	No. Compliance extensions do not apply to new or reconstructed sources.
§63.10(d)(5)	SSM Reports	Contents and submission	Yes.

§63.10(e)(1) and (2)(i)	Additional CMS Reports	Additional CMS reports	Yes.
§63.10(e)(2)(ii)	Additional CMS Reports	COMS-related report	No. Subpart PPTPP does not require COMS.
§63.10(e)(3)	Additional CMS Reports	Excess emissions and parameter exceedances reports	No. Specific language is located in §63.9350 of subpart PPTPP.
§63.10(e)(4)	Additional CMS Reports	Reporting COMS data	No. Subpart PPTPP does not require COMS.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11	Control Device Requirements	Requirements for flares	No. Subpart PPTPP does not specify use of flares for compliance.
§63.12	State Authority and Delegations	State authority to enforce standards	Yes.
§63.13	Addresses of State Air Pollution Control Offices and EPA Regional Offices	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporations by Reference	Test methods incorporated by reference	Yes. ASTM D 6522-00 and ANSI/ASME PTC 19.10-1981 (incorporated by reference-See §63.14).
§63.15	Availability of Information and Confidentiality	Public and confidential information	Yes.

[68 FR 28785, May 27, 2003, as amended at 71 FR 20470, Apr. 20, 2006]