
40 C.F.R. § 63.1413

Compliance demonstration procedures.

(a) *General.* For each emission point, the owner or operator shall meet three stages of compliance, with exceptions specified in this subpart. First, the owner or operator shall conduct a performance test or design evaluation to demonstrate either the performance of the control device or control technology being used or the uncontrolled total organic HAP emissions rate from a continuous process vent. Second, the owner or operator shall meet the requirements for demonstrating initial compliance (*e.g.*, a demonstration that the required percent reduction or emissions limit is achieved). Third, the owner or operator shall meet the requirements for demonstrating continuous compliance through some form of monitoring (*e.g.*, continuous monitoring of operating parameters).

(1) *Large control devices and small control devices.* A large control device is a control device that controls emission points with total emissions of 10 tons of organic HAP per year or more before control. A small control device is a control device that controls emission points with total emissions less than 10 tons of organic HAP per year before control.

(i) *Large control devices.* Owners or operators are required to conduct a performance test for a large control device. The establishment of parameter monitoring levels shall be based on data obtained during the required performance test.

(ii) *Small control devices.* Owners or operators are required to conduct a design evaluation for a small control device. An owner or operator may choose to conduct a performance test for a small control device and such a performance test shall follow the procedures specified in this section, as appropriate. Whenever a small control device becomes a large control device, the owner or operator shall conduct a performance test following the procedures specified in this section, as appropriate. Notification that such a performance test is required, the site-specific test plan, and the results of the performance test shall be provided to the Administrator as specified in § 63.1417. Except as provided in § 63.1415(a)(2), the parameter monitoring levels for small control devices shall be set based on the design evaluation required by paragraph (a)(3) of this section. Further, when setting the parameter monitoring level(s) based on the design evaluation, the owner or operator shall submit the information specified in § 63.1417(d)(7) for review and approval as part of the Precompliance Report.

(iii) *Uncontrolled continuous process vents.* Owners or operators are required to conduct either a performance test or a design evaluation for continuous process vents that are not controlled through either a large or small control device.

(2) *Performance tests.* Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested and in accordance with the General Provisions at § 63.7(a)(1), (a)(3), (d), (e)(2), (e)(4), (g), and (h), with the exceptions specified in paragraph (a)(1) of this section. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator or an applicable subpart. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the

process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. Data shall be reduced in accordance with the EPA approved methods specified in this subpart or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of Appendix A of this part.

(i) *Additional control devices not requiring performance tests.* An owner or operator is not required to conduct a performance test when using one of the following control devices:

(A) A boiler or process heater with a design heat input capacity of 44 megawatts or greater.

(B) A boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel.

(C) A boiler or process heater burning hazardous waste for which the owner or operator:

(1) Has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H; or

(2) Has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(D) A hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 264, subpart O, or has certified compliance with the interim status requirements of 40 CFR part 265, subpart O.

(E) A control device for which a performance test was already conducted for determining compliance with another regulation promulgated by the EPA, provided the test was conducted using the same Methods specified in this section, and either no deliberate process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. Parameter monitoring levels established based on such a performance test may be used for purposes of demonstrating continuous compliance with this subpart.

(ii) *Exceptions to performance test requirements in the General Provisions.* (A) Performance tests shall be conducted at maximum representative operating conditions achievable during either the 6-month period ending 2 months before the Notification of Compliance Status required by § 63.1417(e) is due, or during the 6-month period surrounding the date of the performance test (i.e., the period beginning 3 months prior to the performance test and ending 3 months after the performance test). In achieving maximum representative operating conditions, an owner or operator is not required to cause damage to equipment, make a product that does not meet an existing specification for sale to a customer, or make a product in excess of demand.

(B) When § 63.7(g) references the Notification of Compliance Status requirements in § 63.9(h), the requirements in § 63.1417(e) shall apply for purposes of this subpart.

(C) Performance tests shall be performed no later than 150 days after the compliance dates specified in this subpart (i.e., in time for the results to be included in the Notification of Compliance Status), rather than according to the time periods in § 63.7(a)(2).

(3) *Design evaluations.* As provided in paragraph (a) of this section, a design evaluation may be conducted to demonstrate the organic HAP removal efficiency for a control device or control technology, or the uncontrolled total organic HAP emissions rate from a continuous process vent. As applicable, a design evaluation shall

address the organic HAP emissions rate from uncontrolled continuous process vents, the composition and organic HAP concentration of the vent stream(s) entering a control device or control technology, the operating parameters of the emission point and any control device or control technology, and other conditions or parameters that reflect the performance of the control device or control technology or the organic HAP emission rate from a continuous process vent. A design evaluation also shall address other vent stream characteristics and control device operating parameters as specified in any one of paragraphs (a)(3)(i) through (vi) of this section, for controlled vent streams, depending on the type of control device that is used. If the vent stream(s) is not the only inlet to the control device, the efficiency demonstration also shall consider all other vapors, gases, and liquids, other than fuels, received by the control device.

(i) For a scrubber, the design evaluation shall consider the vent stream composition, constituent concentrations, liquid-to-vapor ratio, scrubbing liquid flow rate and concentration, temperature, and the reaction kinetics of the constituents with the scrubbing liquid. The design evaluation shall establish the design exhaust vent stream organic compound concentration level and include the additional information in paragraphs (a)(3)(i)(A) and (B) of this section for trays and a packed column scrubber:

(A) Type and total number of theoretical and actual trays; and

(B) Type and total surface area of packing for entire column, and for individual packed sections if column contains more than one packed section.

(ii) For a condenser, the design evaluation shall consider the vent stream flow rate, relative humidity, and temperature and shall establish the design outlet organic HAP compound concentration level, design average temperature of the condenser exhaust vent stream, and the design average temperatures of the coolant fluid at the condenser inlet and outlet. The temperature of the gas stream exiting the condenser shall be measured and used to establish the outlet organic HAP concentration.

(iii) For a carbon adsorption system that regenerates the carbon bed directly onsite in the control device, such as a fixed-bed adsorber, the design evaluation shall consider the vent stream flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration level, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total regeneration stream mass or volumetric flow over the period of each complete carbon bed regeneration cycle, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon. For vacuum desorption, the pressure drop shall be included.

(iv) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister, the design evaluation shall consider the vent stream mass or volumetric flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(v) For an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760 C, the design evaluation shall document that these conditions exist.

(vi) For a combustion control device that does not satisfy the criteria in paragraph (a)(3)(v) of this section, the design evaluation shall address the following characteristics, depending on the type of control device:

(A) For a thermal vapor incinerator, the design evaluation shall consider the autoignition temperature of the organic HAP, shall consider the vent stream flow rate, and shall establish the design minimum and average

temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design evaluation shall consider the vent stream flow rate and shall establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

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