

system requirements) and 63.994 (halogen scrubber requirements); the applicable general monitoring requirements of § 63.996; the applicable performance test requirements; and the monitoring, recordkeeping and reporting requirements referenced therein.

(1) Reduce the emissions of inorganic HAP from the process vent stream by 95 percent by weight.

(2) Reduce or maintain the concentration of emitted inorganic HAP from the process vent to less than or equal to 0.42 ppmv.

(d) *Storage tanks.* For each storage tank, 1,500 gallons or larger, you must limit total HAP emissions to the level specified in paragraph (d)(1) or (2) of this section if the emissions from the storage tank vent contains greater than 0.42 ppmv inorganic HAP. These limitations can be met by venting emissions from your storage tank through a closed vent system to a halogen scrubber meeting the requirements of §§ 63.983 (closed vent system requirements) and 63.994 (halogen scrubber requirements); the applicable general monitoring requirements of § 63.996; the applicable performance test requirements; and the monitoring, recordkeeping and reporting requirements referenced therein.

(1) Reduce the emissions of inorganic HAP from each storage tank by 95 percent by weight.

(2) Reduce or maintain the concentration of emitted inorganic HAP from the process vent to less than or equal to 0.42 ppmv.

(e) You must comply with the applicable work practice standards and operating limits contained in § 63.982(a)(1) and (2). The closed vent system inspection requirements of § 63.983(c), as referenced by § 63.982(a)(1) and (2), do not apply.

COMPLIANCE REQUIREMENTS

§ 63.7185 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the requirements of § 63.7184 at all times, except during periods of startup, shutdown, or malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and moni-

toring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP). Your SSMP must be prepared in accordance with the provisions in § 63.6(e)(3).

(d) You must perform all the items listed in paragraphs (d)(1) through (3) of this section:

(1) Submit the necessary notifications in accordance with § 63.7189.

(2) Submit the necessary reports in accordance with § 63.7190.

(3) Maintain all necessary records you have used to demonstrate compliance with this subpart in accordance with § 63.7191.

§ 63.7186 By what date must I conduct performance tests or other initial compliance demonstrations?

For each process vent or storage tank vent emission limitation in § 63.7184 for which initial compliance is demonstrated by meeting a percent by weight HAP emissions reduction, or a HAP concentration limitation, you must conduct performance tests or an initial compliance demonstration within 180 days after the compliance date that is specified for your source in § 63.7183 and according to the provisions in § 63.7(a)(2).

§ 63.7187 What performance tests and other compliance procedures must I use?

(a) You must conduct each performance test in Table 1 to this subpart that applies to you as specified for process vents in § 63.982(a)(2) and storage tanks in § 63.982(a)(1). Performance tests must be conducted under maximum operating conditions or HAP emissions potential. Section 63.982(a)(1) and (2) only includes methods to measure the total organic regulated material or total organic carbon (TOC) concentration. The EPA Methods 26 and 26A are included in Table 1 to this subpart in addition to the test methods contained within § 63.982(a)(1) and (2). The EPA Method 26 or 26A must be used for testing regulated material containing inorganic HAP. Method 320 of 40 CFR part 63, appendix A, must be

used to measure total vapor phase organic and inorganic HAP concentrations.

(b) If, without the use of a control device, your process vent stream has an organic HAP concentration of 20 ppmv or less or an inorganic HAP concentration of 0.42 ppmv or less, or your storage tank vent stream has an inorganic HAP concentration of 0.42 ppmv or less, you may demonstrate that the vent stream is compliant by engineering assessments and calculations or by conducting the applicable performance test requirements specified in Table 1 to this subpart. Your engineering assessments and calculations, as with performance tests (as specified in §63.982(a)(1) and (2)), must represent your maximum operating conditions or HAP emissions potential and must be approved by the Administrator. You must demonstrate continuous compliance by certifying that your operations will not exceed the maximum operating conditions or HAP emissions potential represented by your engineering assessments, calculations, or performance test.

(c) If you are using a control device to comply with the emission limitations in §63.7184 and the inlet concentration of HAP to the control device is 20 ppmv or less, then you may demonstrate that the control device meets the percent by weight HAP emission reduction limitation in §63.7184(c)(1) or (d)(1) by conducting a design evaluation as specified in paragraph (i) of this section. Your design evaluation must represent your maximum operating conditions or HAP emissions potential and must be approved by the Administrator. You must demonstrate continuous compliance by certifying that your operations will not exceed the maximum operating conditions or HAP emissions potential represented by your design evaluation.

(d) During periods of startup, shutdown, and malfunction, you must operate in accordance with your SSMP.

(e) For each monitoring system required in this section, you must develop and submit for approval a site-specific monitoring plan that addresses the criteria specified in paragraphs (e)(1) through (3) of this section.

(1) Installation of the continuous monitoring system (CMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device);

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and

(3) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(f) In your site-specific monitoring plan, you must also address the procedural processes in paragraphs (f)(1) through (3) of this section.

(1) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), (4)(ii), (7), and (8);

(2) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(3) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(g) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(h) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(i) *Design evaluation.* To demonstrate that a control device meets the required percent by weight inorganic HAP emission reduction limitation in §63.7184(c)(1) or (d)(1), a design evaluation must address the composition of the inorganic HAP concentration of the vent stream entering the control device. A design evaluation also must address other vent stream characteristics and control device operating parameters as specified in any one of paragraphs (i)(1) through (5) of this section, depending on the type of control device that is used. If the vent stream is not the only inlet to the control device, the efficiency demonstration must also consider all other vapors, gases, and liquids, other than fuels, received by the control device.

(1) 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 must be measured and used to establish the outlet organic HAP concentration.

(2) 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.

(3) 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.

(4) 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 es-

tablish the design exhaust vent stream organic compound concentration level and will include the additional information in paragraphs (i)(5)(i) and (ii) of this section for trays and a packed column scrubber.

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

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

§ 63.7188 What are my monitoring installation, operation, and maintenance requirements?

If you comply with the emission limitations of § 63.7184 by venting the emissions of your semiconductor process vent through a closed vent system to a control device, you must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must meet the applicable general monitoring, installation, operation, and maintenance requirements specified in § 63.996.

(b) You must meet the monitoring, installation, operation, and maintenance requirements specified for closed vent systems and applicable control devices in §§ 63.983 through 63.995. If you used the design evaluation procedure in § 63.7187(i) to demonstrate compliance, you must use the information from the design evaluation to establish the operating parameter level for monitoring of the control device.

APPLICATIONS, NOTIFICATIONS, REPORTS, AND RECORDS

§ 63.7189 What applications and notifications must I submit and when?

(a) You must submit all of the applications and notifications in §§ 63.7(b) and (c); 63.8(e), (f)(4) and (f)(6); and 63.9(b) through (e), (g) and (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you start up your affected source before May 22, 2003, you must submit an Initial Notification not later than 120 calendar days after May 22, 2003.

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed affected source on or after May 22, 2003, you must submit an Initial Notification not later than 120 calendar days