

**§ 63.9010**

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

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

(4) Ongoing operation and maintenance (O&M) procedures in accordance with the general requirements of §§ 63.8(c)(1), (3), (4)(ii), (7), and (8), and 63.9025.

(5) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

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

**TESTING AND INITIAL COMPLIANCE REQUIREMENTS**

**§ 63.9010 By what date must I conduct performance tests?**

(a) If you have a new or reconstructed affected source, you must conduct performance tests within 180 calendar days after the compliance date that is specified for your source in § 63.8995(a) and according to the provisions in § 63.7(a)(2).

(b) If you have an existing affected source, you must conduct performance tests within 180 calendar days after the compliance date that is specified for your existing affected source in § 63.8995(b) and according to the provisions in § 63.7(a)(2).

(c) If you commenced construction or reconstruction between September 18, 2001 and April 17, 2003, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than 180 calendar days after April 17, 2003 or within 180 calendar days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

**§ 63.9015 When must I conduct subsequent performance tests?**

(a) You must conduct all applicable performance tests according to the procedures in § 63.9020 on the earlier of your title V operating permit renewal or within 5 years of issuance of your title V permit.

(b) You must report the results of subsequent performance tests within 60 days after the completion of the test. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating limits established as specified in Table 2 to this subpart. The reports for all subsequent performance tests should include all applicable information required in § 63.9050.

**§ 63.9020 What performance tests and other procedures must I use?**

(a) You must conduct each performance test in Table 3 to this subpart that applies to you as directed in paragraphs (a)(1) through (4) of this section, except as noted in paragraphs (b) and (c) of this section.

(1) You must develop a site-specific test plan according to § 63.7(c)(2) and conduct each performance test according to the site-specific test plan.

(2) You must conduct each performance test under representative conditions according to the requirements in § 63.7(e)(1) and under the specific conditions that this subpart specifies in Table 3.

(3) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(4) You must conduct at least three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(b) If you are complying with a percent reduction emission limitation, you must determine the percent reduction in accordance with paragraphs (b)(1) and (2) of this section.

(1) Calculate the mass rate of either HCl or chlorine using Equations 1 and 2 of this section:

$$E_i = K_2(C_i M_i)Q_i \quad \text{Equation 1}$$

$$E_o = K_2(C_o M_o)Q_o \quad \text{Equation 2}$$

where:

C<sub>i</sub>, C<sub>o</sub> = Concentration of HCl or Cl<sub>2</sub> in the gas stream at the inlet and outlet of the control device(s), respectively, dry basis, parts per million by volume.

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$E_i$ ,  $E_o$  = Mass rate of HCl or Cl<sub>2</sub> at the inlet and outlet of the control device(s), respectively, dry basis, kilogram per hour.

$M_i$ ,  $M_o$  = Molecular weight of HCl or Cl<sub>2</sub> at the inlet and outlet of the control device(s), respectively, gram/gram-mole.

$Q_i$ ,  $Q_o$  = Flow rate of gas stream at the inlet and outlet of the control device(s), respectively, dry standard cubic meter per minute.

$K_2$  = Constant,  $2.494 \times 10^{-6}$  (parts per million)<sup>M1</sup> (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature (gram-mole per standard cubic meter) is 20 °C.

(2) Calculate the percent reduction of HCl or Cl<sub>2</sub> using Equation 3 of this section:

$$R = \frac{E_i - E_o}{E_i} (100) \quad \text{Equation 3}$$

where:

R = Control efficiency of control device(s).

$E_i$  = Mass rate of HCl or Cl<sub>2</sub> to the inlet to the control device(s), kilograms per hour.

$E_o$  = Mass rate of HCl or Cl<sub>2</sub> at the outlet of the control device(s), kilograms per hour.

(c) You may prepare a design evaluation in lieu of conducting a performance test for HCl storage tanks and HCl transfer operations that are not routed to a control device that also controls HCl process vent emissions or any other continuous vent stream. The design evaluation shall include documentation demonstrating that the control technique being used achieves the required control efficiency when a liquid HCl product with a concentration of 30 weight percent or greater is being loaded into the storage tank, or a tank truck, rail car, ship, or barge.

(1) If you use a caustic scrubber control device or a water scrubber control device, the design evaluation shall address 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 concentration level and shall include the additional information in paragraphs (c)(1)(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 the column contains more than one packed section.

(2) If you use any other control device, the design evaluation shall address the composition and HAP concentration of the vent stream immediately preceding the control device, as well as other parameters necessary to demonstrate that the control technique being used achieves the required control efficiency when a liquid HCl product with a concentration of 30 weight percent or greater is being loaded into the storage tank, or a tank truck, rail car, ship, or barge.

(d) You are not required to conduct a performance test for an emission point for which a performance test was conducted within the previous 5-year period, using the same test methods specified in this section and for which 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. The operating limits reported under the previous performance test shall be sufficient to meet the monitoring requirements in this subpart.

(e) You must establish all operating limits with which you will demonstrate continuous compliance with the applicable emission limits in Table 1 to this subpart as described in paragraphs (e)(1) through (3) of this section.

(1) If you use a caustic scrubber control device or water scrubber control device and you conduct a performance test, you must establish operating limits according to paragraphs (e)(1)(i) and (ii) of this section. If a series of control devices are used, you must establish separate operating limits for each device.

(i) You must establish the minimum value as the operating limit for scrubber inlet liquid or recirculating liquid flow rate, as appropriate. The minimum value shall be based on the scrubber inlet liquid or recirculating liquid flow rate, as appropriate, values measured during the performance test.

(ii) You must establish the minimum and maximum values as the operating limits for scrubber effluent pH. The

minimum and maximum values shall be based on the scrubber effluent pH values measured during the performance test.

(2) If you use any other control device and you conduct a performance test, you must establish operating limits according to your site-specific test plan submitted in accordance with § 63.7(c)(2)(i). The operating limits shall be based on the operating parameter values measured during the performance test. If a series of control devices are used, you must establish separate operating limits for each device.

(3) If you do not conduct a performance test for a HCl storage tank or HCl transfer operation, you must use engineering assessments and/or manufacturer's recommendations to establish the operating limits specified in paragraphs (e)(1)(i) and (ii), or (e)(2), of this section.

(4) As needed in applicability determinations, you must use ASTM E224 to determine the HCl concentration in liquid products.

**§ 63.9025 What are my monitoring installation, operation, and maintenance requirements?**

(a) For each operating parameter that you are required by § 63.9020(d) to monitor, you must install, operate, and maintain each CMS according to the requirements in paragraphs (a)(1) through (6) of this section.

(1) You must operate your CMS and collect data at all times the process is operating.

(2) You must collect data from at least four equally spaced periods each hour.

(3) For at least 75 percent of the operating hours in a 24-hour period, you must have valid data (as defined in your site-specific monitoring plan) for at least 4 equally spaced periods each hour.

(4) For each hour that you have valid data from at least four equally spaced periods, you must calculate the hourly average value using all valid data or, where data are collected from an automated CMS, using at least one measured value per minute if measured more frequently than once per minute.

(5) You must calculate the daily average using all of the hourly averages

calculated according to paragraph (a)(4) of this section for the 24-hour period.

(6) You must record the results for each inspection, calibration, and validation check as specified in your site-specific monitoring plan.

(b) For scrubber control devices, you may request approval, in accordance with § 63.8(f), to monitor parameters other than those specified in § 63.9020(e). In accordance with § 63.8(f), you must submit a monitoring plan to the Administrator and the plan must meet the requirements in paragraphs (a) and (b)(1) through (3) of this section. You must conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(1) Identify the operating parameter to be monitored to ensure that the control or capture efficiency measured during the initial compliance test is maintained.

(2) Discuss why this parameter is appropriate for demonstrating ongoing compliance.

(3) Identify the specific monitoring procedures.

(c) For any other control device, you must ensure that the CMS is operated according to a monitoring plan submitted to the Administrator as required by § 63.8(f). The monitoring plan must meet the requirements in paragraphs (a) and (c)(1) through (3) of this section. You must conduct monitoring in accordance with the plan submitted to the Administrator, as amended, unless comments received from the Administrator require an alternate monitoring scheme.

(1) Identify the operating parameter to be monitored to ensure that the control or capture efficiency measured during the initial compliance test is maintained.

(2) Discuss why this parameter is appropriate for demonstrating ongoing compliance.

(3) Identify the specific monitoring procedures.